

PCT

ANTRAG

Der Unterzeichnete beantragt, daß die vorliegende internationale Anmeldung nach dem Vertrag über die internationale Zusammenarbeit auf dem Gebiet des Patentwesens behandelt wird.

Vom Anmeldeamt auszufüllen

Internationales Aktenzeichen

NEUANMELDUNG

Internationales Anmeldedatum

05.05.93

Name des Anmeldeamts und "PCT International Application"

Aktenzeichen des Anmelders oder Anwalts (falls gewünscht)  
(max. 12 Zeichen) Le A 32 344-PC KM

## Feld Nr. I BEZEICHNUNG DER ERFINDUNG

"Heißsiegelfähiges Filtermaterial mit biologisch abbaubaren Polymeren"

## Feld Nr. II ANMELDER

Name und Anschrift: (Familienname, Vorname; bei juristischen Personen vollständige amtliche Bezeichnung. Bei der Anschrift sind die Postleitzahl und der Name des Staats anzugeben. Der in diesem Feld in der Anschrift angegebene Staat ist der Staat des Sitzes oder Wohnsitzes des Anmelders, sofern nachstehend kein Staat des Sitzes oder Wohnsitzes angegeben ist.)

BAYER AKTIENGESELLSCHAFT  
D 51368 Leverkusen  
DE

☐ Diese Person ist gleichzeitig Erfinder

Telefonnr.:  
0214 30 71166

Telefaxnr.:  
0214 30 34 82

Fernschreibnr.:  
85 101-265byd

Staatsangehörigkeit (Staat):  
DE

Sitz oder Wohnsitz (Staat):  
DE

Diese Person ist Anmelder für folgende Staaten:

☐ alle Bestimmungsstaaten

☒ alle Bestimmungsstaaten mit Ausnahme der Vereinigten Staaten von Amerika

☐ nur die Vereinigten Staaten von Amerika

☐ die im Zusatzfeld angegebenen Staaten

## Feld Nr. III WEITERE ANMELDER UND/ODER (WEITERE) ERFINDER

Name und Anschrift: (Familienname, Vorname; bei juristischen Personen vollständige amtliche Bezeichnung. Bei der Anschrift sind die Postleitzahl und der Name des Staats anzugeben. Der in diesem Feld in der Anschrift angegebene Staat ist der Staat des Sitzes oder Wohnsitzes des Anmelders, sofern nachstehend kein Staat des Sitzes oder Wohnsitzes angegeben ist.)

Papierfabrik Schoeller & Hoesch GmbH  
D 76593 Gernsbach  
DE

Diese Person ist:

☒ nur Anmelder

☐ Anmelder und Erfinder

☐ nur Erfinder (Wird dieses Kästchen angekreuzt, so sind die nachstehenden Angaben nicht nötig.)

Staatsangehörigkeit (Staat):  
DE

Sitz oder Wohnsitz (Staat):  
DE

Diese Person ist Anmelder für folgende Staaten:

☐ alle Bestimmungsstaaten

☒ alle Bestimmungsstaaten mit Ausnahme der Vereinigten Staaten von Amerika

☐ nur die Vereinigten Staaten von Amerika

☐ die im Zusatzfeld angegebenen Staaten

☒ Weitere Anmelder und/oder (weitere) Erfinder sind auf einem Fortsetzungsblatt angegeben.

## Feld Nr. IV ANWALT ODER GEMEINSAMER VERTRETER; ZUSTELLANSCHRIFT

Die folgende Person wird hiermit bestellt/ist bestellt worden, um für den (die) Anmelder vor den zuständigen internationalen Behörden in folgender Eigenschaft zu handeln als:

☐ Anwalt

☒ gemeinsamer Vertreter

Name und Anschrift: (Familienname, Vorname; bei juristischen Personen vollständige amtliche Bezeichnung. Bei der Anschrift sind die Postleitzahl und der Name des Staats anzugeben.)

BAYER AKTIENGESELLSCHAFT  
51368 Leverkusen, DE

Telefonnr.:  
0214 30 71166

Telefaxnr.:  
0214 30 34 82

Fernschreibnr.:  
85 101-265byd

☐ Dieses Kästchen ist anzukreuzen, wenn kein Anwalt oder gemeinsamer Vertreter bestellt ist und statt dessen im obigen Feld eine spezielle Zustellanschrift angegeben ist.

## Fortsetzung von Feld Nr. III WEITERE ANMELDER UND/ODER (WEITERE) ERFINDER

*Wird keines der folgenden Felder benutzt, so ist dieses Blatt dem Antrag nicht beizufügen.*

Name und Anschrift: (Familienname, Vorname; bei juristischen Personen vollständige amtliche Bezeichnung. Bei der Anschrift sind die Postleitzahl und der Name des Staats anzugeben. Der in diesem Feld in der Anschrift angegebene Staat ist der Staat des Sitzes oder Wohnsitzes des Anmelders, sofern nachstehend kein Staat des Sitzes oder Wohnsitzes angegeben ist.)

Timmermann, Ralf  
Scheiblerstr. 81  
D 47800 Krefeld  
DE ✓

Diese Person ist:

☐ nur Anmelder

☒ Anmelder und Erfinder

☐ nur Erfinder (Wird dieses Kästchen angekreuzt, so sind die nachstehenden Angaben nicht nötig.)

Staatsangehörigkeit (Staat):

DE

Sitz oder Wohnsitz (Staat):

DE

Diese Person ist Anmelder für folgende Staaten:

☐ alle Bestimmungsstaaten

☐ alle Bestimmungsstaaten mit Ausnahme der Vereinigten Staaten von Amerika

☒ nur die Vereinigten Staaten von Amerika

☐ die im Zusatzfeld angegebenen Staaten

Name und Anschrift: (Familienname, Vorname; bei juristischen Personen vollständige amtliche Bezeichnung. Bei der Anschrift sind die Postleitzahl und der Name des Staats anzugeben. Der in diesem Feld in der Anschrift angegebene Staat ist der Staat des Sitzes oder Wohnsitzes des Anmelders, sofern nachstehend kein Staat des Sitzes oder Wohnsitzes angegeben ist.)

Grigat, Ernst  
Grundermühlenweg 16  
D 51381 Leverkusen  
DE ✓

Diese Person ist:

☐ nur Anmelder

☒ Anmelder und Erfinder

☐ nur Erfinder (Wird dieses Kästchen angekreuzt, so sind die nachstehenden Angaben nicht nötig.)

Staatsangehörigkeit (Staat):

DE

Sitz oder Wohnsitz (Staat):

DE

Diese Person ist Anmelder für folgende Staaten:

☐ alle Bestimmungsstaaten

☐ alle Bestimmungsstaaten mit Ausnahme der Vereinigten Staaten von Amerika

☒ nur die Vereinigten Staaten von Amerika

☐ die im Zusatzfeld angegebenen Staaten

Name und Anschrift: (Familienname, Vorname; bei juristischen Personen vollständige amtliche Bezeichnung. Bei der Anschrift sind die Postleitzahl und der Name des Staats anzugeben. Der in diesem Feld in der Anschrift angegebene Staat ist der Staat des Sitzes oder Wohnsitzes des Anmelders, sofern nachstehend kein Staat des Sitzes oder Wohnsitzes angegeben ist.)

Schulz-Schlitte, Wolfgang  
von Kniprode Weg 7  
D 40764 Langenfeld  
DE ✓

Diese Person ist:

☐ nur Anmelder

☒ Anmelder und Erfinder

☐ nur Erfinder (Wird dieses Kästchen angekreuzt, so sind die nachstehenden Angaben nicht nötig.)

Staatsangehörigkeit (Staat):

DE

Sitz oder Wohnsitz (Staat):

DE

Diese Person ist Anmelder für folgende Staaten:

☐ alle Bestimmungsstaaten

☐ alle Bestimmungsstaaten mit Ausnahme der Vereinigten Staaten von Amerika

☒ nur die Vereinigten Staaten von Amerika

☐ die im Zusatzfeld angegebenen Staaten

Name und Anschrift: (Familienname, Vorname; bei juristischen Personen vollständige amtliche Bezeichnung. Bei der Anschrift sind die Postleitzahl und der Name des Staats anzugeben. Der in diesem Feld in der Anschrift angegebene Staat ist der Staat des Sitzes oder Wohnsitzes des Anmelders, sofern nachstehend kein Staat des Sitzes oder Wohnsitzes angegeben ist.)

Schroft, Sabine  
Gallenbacherstr. 9  
D 76534 Baden-Baden  
DE ✓

Diese Person ist:

☐ nur Anmelder

☒ Anmelder und Erfinder

☐ nur Erfinder (Wird dieses Kästchen angekreuzt, so sind die nachstehenden Angaben nicht nötig.)

Staatsangehörigkeit (Staat):

DE

Sitz oder Wohnsitz (Staat):

DE

Diese Person ist Anmelder für folgende Staaten:

☐ alle Bestimmungsstaaten

☐ alle Bestimmungsstaaten mit Ausnahme der Vereinigten Staaten von Amerika

☒ nur die Vereinigten Staaten von Amerika

☐ die im Zusatzfeld angegebenen Staaten

☒ Weitere Anmelder und/oder (weitere) Erfinder sind auf einem zusätzlichen Fortsetzungsblatt angegeben.

## Fortsetzung von Feld Nr. III WEITERE ANMELDER UND/ODER (WEITERE) ERFINDER

*Wird keines der folgenden Felder benutzt, so ist dieses Blatt dem Antrag nicht beizufügen.*

Name und Anschrift: (Familienname, Vorname; bei juristischen Personen vollständige amtliche Bezeichnung. Bei der Anschrift sind die Postleitzahl und der Name des Staats anzugeben. Der in diesem Feld in der Anschrift angegebene Staat ist der Staat des Sitzes oder Wohnsitzes des Anmelders, sofern nachstehend kein Staat des Sitzes oder Wohnsitzes angegeben ist.)

Grangladen, Richard  
Grand Rue 15  
F-68170 Rixheim  
FR

Diese Person ist:

- ☐ nur Anmelder  
☒ Anmelder und Erfinder  
☐ nur Erfinder (Wird dieses Kästchen angekreuzt, so sind die nachstehenden Angaben nicht nötig.)

Staatsangehörigkeit (Staat):  
DE

Sitz oder Wohnsitz (Staat):  
FR

Diese Person ist Anmelder für folgende Staaten:

☐ alle Bestimmungsstaaten

☐ alle Bestimmungsstaaten mit Ausnahme der Vereinigten Staaten von Amerika

☒ nur die Vereinigten Staaten von Amerika

☐ die im Zusatzfeld angegebenen Staaten

Name und Anschrift: (Familienname, Vorname; bei juristischen Personen vollständige amtliche Bezeichnung. Bei der Anschrift sind die Postleitzahl und der Name des Staats anzugeben. Der in diesem Feld in der Anschrift angegebene Staat ist der Staat des Sitzes oder Wohnsitzes des Anmelders, sofern nachstehend kein Staat des Sitzes oder Wohnsitzes angegeben ist.)

Heinrich, Günter  
Schubertstr. 28  
D 76593 Gernsbach  
DE

Diese Person ist:

- ☐ nur Anmelder  
☒ Anmelder und Erfinder  
☐ nur Erfinder (Wird dieses Kästchen angekreuzt, so sind die nachstehenden Angaben nicht nötig.)

Staatsangehörigkeit (Staat):  
DE

Sitz oder Wohnsitz (Staat):  
DE

Diese Person ist Anmelder für folgende Staaten:

☐ alle Bestimmungsstaaten

☐ alle Bestimmungsstaaten mit Ausnahme der Vereinigten Staaten von Amerika

☒ nur die Vereinigten Staaten von Amerika

☐ die im Zusatzfeld angegebenen Staaten

Name und Anschrift: (Familienname, Vorname; bei juristischen Personen vollständige amtliche Bezeichnung. Bei der Anschrift sind die Postleitzahl und der Name des Staats anzugeben. Der in diesem Feld in der Anschrift angegebene Staat ist der Staat des Sitzes oder Wohnsitzes des Anmelders, sofern nachstehend kein Staat des Sitzes oder Wohnsitzes angegeben ist.)

Diese Person ist:

- ☐ nur Anmelder  
☐ Anmelder und Erfinder  
☐ nur Erfinder (Wird dieses Kästchen angekreuzt, so sind die nachstehenden Angaben nicht nötig.)

Staatsangehörigkeit (Staat):

Sitz oder Wohnsitz (Staat):

Diese Person ist Anmelder für folgende Staaten:

☐ alle Bestimmungsstaaten

☐ alle Bestimmungsstaaten mit Ausnahme der Vereinigten Staaten von Amerika

☐ nur die Vereinigten Staaten von Amerika

☐ die im Zusatzfeld angegebenen Staaten

Name und Anschrift: (Familienname, Vorname; bei juristischen Personen vollständige amtliche Bezeichnung. Bei der Anschrift sind die Postleitzahl und der Name des Staats anzugeben. Der in diesem Feld in der Anschrift angegebene Staat ist der Staat des Sitzes oder Wohnsitzes des Anmelders, sofern nachstehend kein Staat des Sitzes oder Wohnsitzes angegeben ist.)

Diese Person ist:

- ☐ nur Anmelder  
☐ Anmelder und Erfinder  
☐ nur Erfinder (Wird dieses Kästchen angekreuzt, so sind die nachstehenden Angaben nicht nötig.)

Staatsangehörigkeit (Staat):

Sitz oder Wohnsitz (Staat):

Diese Person ist Anmelder für folgende Staaten:

☐ alle Bestimmungsstaaten

☐ alle Bestimmungsstaaten mit Ausnahme der Vereinigten Staaten von Amerika

☐ nur die Vereinigten Staaten von Amerika

☐ die im Zusatzfeld angegebenen Staaten

☐ Weitere Anmelder und/oder (weitere) Erfinder sind auf einem zusätzlichen Fortsetzungsblatt angegeben.

# Feld Nr. V BESTIMMUNG VON STAAT

Die folgenden Bestimmungen nach Regel 4.9 Absatz a werden hiermit vorgenommen (bitte die entsprechenden Kästchen ankreuzen; wenigstens ein Kästchen muß angekreuzt werden):

## Regionales Patent

- ☒ AP ARIPO-Patent: GH Ghana, GM Gambia, KE Kenia, LS Lesotho, MW Malawi, SD Sudan, SZ Swasiland, UG Uganda, ZW Simbabwe und jeder weitere Staat, der Vertragsstaat des Harare-Protokolls und des PCT ist
- ☒ EA Eurasisches Patent: AM Armenien, AZ Aserbaidshon, BY Belarus, KG Kirgisistan, KZ Kasachstan, MD Republik Moldau, RU Russische Föderation, TJ Tadschikistan, TM Turkmenistan und jeder weitere Staat, der Vertragsstaat des Eurasischen Patentübereinkommens und des PCT ist
- ☒ EP Europäisches Patent: AT Österreich, BE Belgien, CH und LI Schweiz und Liechtenstein, DE Deutschland, DK Dänemark, ES Spanien, FI Finnland, FR Frankreich, GB Vereinigtes Königreich, GR Griechenland, IE Irland, IT Italien, LU Luxemburg, MC Monaco, NL Niederlande, PT Portugal, SE Schweden und jeder weitere Staat, der Vertragsstaat des Europäischen Patentübereinkommens und des PCT ist
- ☒ OA OAPI-Patent: BF Burkina Faso, BJ Benin, CF Zentralafrikanische Republik, CG Kongo, CI Côte d'Ivoire, CM Kamerun, GA Gabun, GN Guinea, ML Mali, MR Mauretanien, NE Niger, SN Senegal, TD Tschad, TG Togo und jeder weitere Staat, der Vertragsstaat der OAPI und des PCT ist (falls eine andere Schutzrechtsart oder ein sonstiges Verfahren gewünscht wird, bitte auf der gepunkteten Linie angeben) .....

Nationales Patent (falls eine andere Schutzrechtsart oder ein sonstiges Verfahren gewünscht wird, bitte auf der gepunkteten Linie angeben):

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> AL Albanien .....                          | <input checked="" type="checkbox"/> LT Litauen .....   |
| <input checked="" type="checkbox"/> AM Armenien .....                          | <input checked="" type="checkbox"/> LU Luxemburg .....                                       |
| <input checked="" type="checkbox"/> AT Österreich .....                        | <input checked="" type="checkbox"/> LV Lettland .....  |
| <input checked="" type="checkbox"/> AU Australien .....                        | <input checked="" type="checkbox"/> MD Republik Moldau .....                                 |
| <input checked="" type="checkbox"/> AZ Aserbaidshon .....                      | <input checked="" type="checkbox"/> MG Madagaskar .....                                      |
| <input checked="" type="checkbox"/> BA Bosnien-Herzegowina .....               | <input checked="" type="checkbox"/> MK Die ehemalige jugoslawische Republik Mazedonien ..... |
| <input checked="" type="checkbox"/> BB Barbados .....                          | <input checked="" type="checkbox"/> MN Mongolei .....  |
| <input checked="" type="checkbox"/> BG Bulgarien .....                         | <input checked="" type="checkbox"/> MW Malawi .....  |
| <input checked="" type="checkbox"/> BR Brasilien .....                         | <input checked="" type="checkbox"/> MX Mexiko .....  |
| <input checked="" type="checkbox"/> BY Belarus .....                           | <input checked="" type="checkbox"/> NO Norwegen .....  |
| <input checked="" type="checkbox"/> CA Kanada .....                            | <input checked="" type="checkbox"/> NZ Neuseeland .....                                      |
| <input checked="" type="checkbox"/> CH und LI Schweiz und Liechtenstein .....  | <input checked="" type="checkbox"/> PL Polen .....   |
| <input checked="" type="checkbox"/> CN China .....                             | <input checked="" type="checkbox"/> PT Portugal .....  |
| <input checked="" type="checkbox"/> CU Kuba .....                              | <input checked="" type="checkbox"/> RO Rumänien .....  |
| <input checked="" type="checkbox"/> CZ Tschechische Republik .....             | <input checked="" type="checkbox"/> RU Russische Föderation .....                            |
| <input checked="" type="checkbox"/> DE Deutschland .....                       | <input checked="" type="checkbox"/> SD Sudan .....   |
| <input checked="" type="checkbox"/> DK Dänemark .....                          | <input checked="" type="checkbox"/> SE Schweden .....  |
| <input checked="" type="checkbox"/> EE Estland .....                           | <input checked="" type="checkbox"/> SG Singapur .....  |
| <input checked="" type="checkbox"/> ES Spanien .....                           | <input checked="" type="checkbox"/> SI Slowenien .....                                       |
| <input checked="" type="checkbox"/> FI Finnland .....                          | <input checked="" type="checkbox"/> SK Slowakei .....  |
| <input checked="" type="checkbox"/> GB Vereinigtes Königreich .....            | <input checked="" type="checkbox"/> SL Sierra Leone .....                                    |
| <input checked="" type="checkbox"/> GE Georgien .....                          | <input checked="" type="checkbox"/> TJ Tadschikistan .....                                   |
| <input checked="" type="checkbox"/> GH Ghana .....                             | <input checked="" type="checkbox"/> TM Turkmenistan .....                                    |
| <input checked="" type="checkbox"/> GM Gambia .....                            | <input checked="" type="checkbox"/> TR Türkei .....  |
| <input checked="" type="checkbox"/> GW Guinea-Bissau .....                     | <input checked="" type="checkbox"/> TT Trinidad und Tobago .....                             |
| <input checked="" type="checkbox"/> HU Ungarn .....                            | <input checked="" type="checkbox"/> UA Ukraine .....   |
| <input checked="" type="checkbox"/> ID Indonesien .....                        | <input checked="" type="checkbox"/> UG Uganda .....  |
| <input checked="" type="checkbox"/> IL Israel .....                            | <input checked="" type="checkbox"/> US Vereinigte Staaten von Amerika .....                  |
| <input checked="" type="checkbox"/> IS Island .....                            | <input checked="" type="checkbox"/> UZ Usbekistan .....                                      |
| <input checked="" type="checkbox"/> JP Japan .....                             | <input checked="" type="checkbox"/> VN Vietnam .....   |
| <input checked="" type="checkbox"/> KE Kenia .....                             | <input checked="" type="checkbox"/> YU Jugoslawien .....                                     |
| <input checked="" type="checkbox"/> KG Kirgisistan .....                       | <input checked="" type="checkbox"/> ZW Simbabwe .....  |
| <input checked="" type="checkbox"/> KP Demokratische Volksrepublik Korea ..... |  |
| <input checked="" type="checkbox"/> KR Republik Korea .....                    |  |
| <input checked="" type="checkbox"/> KZ Kasachstan .....                        |  |
| <input checked="" type="checkbox"/> LC Saint Lucia .....                       |  |
| <input checked="" type="checkbox"/> LK Sri Lanka .....                         |  |
| <input checked="" type="checkbox"/> LR Liberia .....                           |  |
| <input checked="" type="checkbox"/> LS Lesotho .....                           |  |

Kästchen für die Bestimmung von Staaten (für die Zwecke eines nationalen Patents), die dem PCT nach der Veröffentlichung dieses Formblatts beigetreten sind:

- ☒ und alle diejenigen Länder, die am Anmeldetag dem PCT beigetreten sind.
- ☐ .....
- ☐ .....

Zusätzlich zu den oben genannten Bestimmungen nimmt der Anmelder nach Regel 4.9 Absatz b auch alle anderen nach dem PCT zulässigen Bestimmungen vor mit Ausnahme der Bestimmung von .....

Der Anmelder erklärt, daß diese zusätzlichen Bestimmungen unter dem Vorbehalt einer Bestätigung stehen und jede zusätzliche Bestimmung, die vor Ablauf von 15 Monaten ab dem Prioritätsdatum nicht bestätigt wurde, nach Ablauf dieser Frist als vom Anmelder zurückgenommen gilt. (Die Bestätigung einer Bestimmung erfolgt durch die Einreichung einer Mitteilung, in der diese Bestimmung angegeben wird, und die Zahlung der Bestätigungs- und der Bestätigungsgebühr. Die Bestätigung muß beim Anmeldeamt innerhalb der Frist von 15 Monaten eingehten.)

Zusatzfeld Wird dieses Zusatzfeld nicht benötigt, so ist dieses Blatt dem Antrag nicht beizufügen.

Dieses Feld ist in folgenden Fällen auszufüllen:

1. Wenn der Platz in einem Feld nicht für alle Angaben ausreicht:

insbesondere:

- i) Wenn mehr als drei Anmelder und/oder Erfinder vorhanden sind und kein Fortsetzungsblatt zur Verfügung steht:
- ii) Wenn in Feld Nr. II oder III die Angabe "die im Zusatzfeld angegebenen Staaten" angekreuzt ist:
- iii) Wenn der in Feld Nr. II oder III genannte Erfinder oder Erfinder/Anmelder nicht für alle Bestimmungsstaaten oder für die Vereinigten Staaten von Amerika als Erfinder benannt ist:
- iv) Wenn zusätzlich zu dem Anwalt/den Anwälten, die in Feld Nr. IV angegeben sind, weitere Anwälte bestellt sind:
- v) Wenn in Feld Nr. V bei einem Staat (oder bei OAPI) die Angabe "Zusatzpatent", "Zusatzzertifikat" oder "Zusatzerfinderschein" oder wenn in Feld Nr. V bei den Vereinigten Staaten von Amerika die Angabe "Fortsetzung" oder "Teilfortsetzung" hinzugefügt wird:
- vi) Wenn die Priorität von mehr als drei früheren Anmeldungen beansprucht wird:

In diesem Fall sind mit dem Vermerk "Fortsetzung von Feld Nr. ..." [Nummer des Feldes angeben] die gleichen Angaben zu machen wie in dem Feld vorgesehen, das platzmäßig nicht ausreicht;

In diesem Fall sind mit dem Vermerk "Fortsetzung von Feld Nr. III" für jede weitere Person die in Feld Nr. III vorgesehenen Angaben zu machen.

In diesem Fall sind mit dem Vermerk "Fortsetzung von Feld Nr. II", "Fortsetzung von Feld Nr. III" oder "Fortsetzung von Feld Nr. II und Nr. III" die Namen der Anmelder und neben jedem Namen der Staat oder die Staaten (und/oder ggf. Europäisches oder OAPI-Patent) anzugeben, für die die bezeichnete Person Anmelder ist.

In diesem Fall sind mit dem Vermerk "Fortsetzung von Feld Nr. II" oder "Fortsetzung von Feld Nr. III" oder "Fortsetzung von Feld Nr. II und Nr. III" der Name des Erfinders und neben jedem Namen der Staat oder die Staaten (und/oder ggf. Europäisches oder OAPI-Patent) anzugeben, für die die bezeichnete Person Erfinder ist.

In diesem Fall sind mit dem Vermerk "Fortsetzung von Feld Nr. IV" für jeden weiteren Anwalt die gleichen Angaben zu machen wie in Feld Nr. IV vorgesehen.

In diesem Fall sind mit dem Vermerk "Fortsetzung von Feld Nr. V" die Namen der betreffenden Staaten (oder OAPI) und nach dem Namen jeder dieser Staaten (oder OAPI) das Aktenzeichen des Hauptschutzrechts oder der Hauptschutzrechtsanmeldung und das Datum der Erteilung des Hauptschutzrechts oder der Einreichung der Hauptschutzrechtsanmeldung anzugeben.

In diesem Fall sind mit dem Vermerk "Fortsetzung von Feld Nr. VI" für jede weitere frühere Anmeldung die gleichen Angaben zu machen wie in Feld Nr. VI vorgesehen.

2. Wenn der Anmelder für irgendeine Bestimmungsamt die Vergünstigung nationaler Vorschriften betreffend unschädliche Offenbarung oder Ausnahmen von der Neuheitsschädlichkeit in Anspruch nimmt:

In diesem Fall ist mit dem Vermerk "Erklärung betreffend unschädliche Offenbarung oder Ausnahmen von der Neuheitsschädlichkeit" nachstehend diese Erklärung abzugeben.

Fortsetzung von Feld Nr. IX.

1)

Ralf Timmermann  
Ralf Timmermann

2)

Ernst Grigat  
Ernst Grigat

3)

Wolfgang Schulz-Schlitte  
Wolfgang Schulz-Schlitte

4)

Sabine Schroft  
Sabine Schroft

5)

Richard GRANGLADEN  
Richard Grangladen

6)

Günter Heinrich  
Günter Heinrich

Papierfabrik Schoeller & Hoesch GmbH  
Papierfabrik Schoeller & Hoesch GmbH

## Feld Nr. VI PRIORITÄTSANSPRUCH

Weitere Prioritätsansprüche sind im Zusatzfeld angegeben. ☐

Die Priorität der folgenden früheren Anmeldung(en) wird hiermit beansprucht:

Staat (Anmelde- oder Bestimmungsstaat der Anmeldung)	Anmeldedatum (Tag/Monat/Jahr)	Aktenzeichen	Anmeldeamt (nur bei regionaler oder internationaler Anmeldung)
(1) DE	(13.05.97) 13. Mai 1997	197 19 807.4	
(2)			
(3)			

Dieses Kästchen ankreuzen, wenn die beglaubigte Kopie der früheren Anmeldung von dem Amt ausgestellt werden soll, das für die Zwecke dieser internationalen Anmeldung Anmeldeamt ist (eine Gebühr kann verlangt werden):

☐ Das Anmeldeamt wird hiermit ersucht, eine beglaubigte Abschrift der oben in Zeile(n) \_\_\_\_\_ bezeichneten früheren Anmeldung(en) zu erstellen und dem Internationalen Büro zu übermitteln.

## Feld Nr. VII INTERNATIONALE RECHERCHENBEHÖRDE

Wahl der Internationalen Recherchenbehörde (ISA) (Sind zwei oder mehr Internationale Recherchenbehörden für die internationale Recherche zuständig, ist der Name der Behörde anzugeben, die die internationale Recherche durchführen soll; Zweibuchstaben-Code genügt):

ISA /

Frühere Recherche: Auszufüllen, wenn eine Recherche (internationale Recherche, Recherche internationaler Art oder sonstige Recherche) bereits bei der internationalen Recherchenbehörde beantragt oder von ihr durchgeführt worden ist und diese Behörde nun ersucht wird, die internationale Recherche soweit wie möglich auf die Ergebnisse einer solchen früheren Recherche zu stützen. Die Recherche oder der Recherchenantrag ist durch Angabe der betreffenden Anmeldung (bzw. deren Übersetzung) oder des Recherchenantrags zu bezeichnen.

Staat (oder regionales Amt):

Datum (Tag/Monat/Jahr):

Aktenzeichen:

## Feld Nr. VIII KONTROLLISTE

Diese internationale Anmeldung umfaßt:

1 Antrag : 6 Blätter  
 2 Beschreibung : 12 Blätter  
 3 Ansprüche : 7 Blätter  
 4 Zusammenfassung : 1 Blätter  
 5 Zeichnungen : 3 Blätter  
 Insgesamt : 29 Blätter

Dieser internationalen Anmeldung liegen die nachstehend angekreuzten Unterlagen bei:

1. ☐ Unterzeichnete gesonderte Vollmacht  
 2. ☐ Kopie der allgemeinen Vollmacht  
 3. ☐ Begründung für das Fehlen der Unterschrift  
 4. ☒ Prioritätsbeleg(e) (durch die Zeilennummer von Feld Nr. VI kennzeichnen):  
 5. ☒ Blatt für die Gebührenberechnung  
 6. ☐ Gesonderte Angaben zu hinterlegten Mikroorganismen  
 7. ☐ Sequenzprotokolle für Nucleotide und/oder Aminosäuren (Diskette)  
 8. ☒ Sonstige (einzeln auflisten):  
 Druckschriftenbestellung

Abbildung Nr. \_\_\_\_\_ der Zeichnungen (falls vorhanden) soll mit der Zusammenfassung veröffentlicht werden.

## Feld Nr. IX UNTERSCHRIFT DES ANMELDERS ODER DES ANWALTS

Der Name jeder unterzeichnenden Person ist neben der Unterschrift zu wiederholen, und es ist anzugeben, sofern sich dies nicht eindeutig aus dem Antrag ergibt, in welcher Eigenschaft die Person unterzeichnet.

BAYER AKTIENGESellschaft

Weitere Unterschriften siehe Blatt 5

Dr. Zobel

i. V. Dr. Klimiuk-Japadita  
Dr. Klimiuk-Japadita

Vom Anmeldeamt auszufüllen

1. Datum des tatsächlichen Eingangs dieser internationalen Anmeldung:	2. Zeichnungen <input type="checkbox"/> eingegangen:  <input type="checkbox"/> nicht eingegangen:
3. Geändertes Eingangsdatum aufgrund nachträglich, jedoch fristgerecht eingegangener Unterlagen oder Zeichnungen zur Vervollständigung dieser internationalen Anmeldung:	
4. Datum des fristgerechten Eingangs der angeforderten Richtigstellungen nach Artikel 11(2) PCT:	
5. Vom Anmelder benannte Internationale Recherchenbehörde: ISA /	6. <input type="checkbox"/> Übermittlung des Recherchenexemplars bis zur Zahlung der Recherchegebühr aufgeschoben

Vom Internationalen Büro auszufüllen

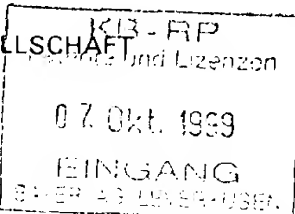
Datum des Eingangs des Aktenexemplars beim Internationalen Büro:

Rec'd PCT/PTO 10 NO

From the INTERNATIONAL BUREAU

NOTIFICATION OF THE RECORDING  
OF A CHANGE(PCT Rule 92bis.1 and  
Administrative Instructions, Section 422)

To:

BAYER AKTIENGESELLSCHAFT  
D-51368 Leverkusen  
ALLEMAGNE

Date of mailing (day/month/year)

28 September 1999 (28.09.99)

Applicant's or agent's file reference

Le A 32 344-PC KM

International application No.

PCT/EP98/02553

International filing date (day/month/year)

30 April 1998 (30.04.98)

## IMPORTANT NOTIFICATION

1. The following indications appeared on record concerning:



the applicant



the inventor



the agent



the common representative

Name and Address

PAPIERFABRIK SCHOELLER & HOESCH  
GMBH  
Hördener Strasse 3-7  
D-76593 Gernsbach  
Germany

State of Nationality

DE

State of Residence

DE

Telephone No.

Facsimile No.

Teleprinter No.

2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:



the person



the name



the address



the nationality



the residence

Name and Address

PAPIERFABRIK SCHOELLER & HOESCH  
GMBH & CO. KG  
Hördener Strasse 3-7  
D-76593 Gernsbach  
Germany

State of Nationality

DE

State of Residence

DE

Telephone No.

Facsimile No.

Teleprinter No.

3. Further observations, if necessary:

4. A copy of this notification has been sent to:



the receiving Office



the International Searching Authority



the International Preliminary Examining Authority



the designated Offices concerned



the elected Offices concerned



other:

The International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland

Facsimile No.: (41-22) 740.14.35

Authorized officer

Céline Faust

Telephone No.: (41-22) 338.83.38

**Translation**

**PATENT COOPERATION TREATY**

**PCT**

**INTERNATIONAL PRELIMINARY EXAMINATION REPORT**

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference Le A 32 344-PC KM	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP98/02553	International filing date ( <i>day month year</i> ) 30 April 1998 (30.04.1998)	Priority date ( <i>day month year</i> ) 13 May 1997 (13.05.1997)
International Patent Classification (IPC) or national classification and IPC B01D 39/16		
Applicant BAYER AKTIENGESELLSCHAFT		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of <u>7</u> sheets, including this cover sheet.  <input type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).  These annexes consist of a total of _____ sheets.
3. This report contains indications relating to the following items:  I <input type="checkbox"/> Basis of the report II <input type="checkbox"/> Priority III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability IV <input type="checkbox"/> Lack of unity of invention V <input type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement VI <input type="checkbox"/> Certain documents cited VII <input type="checkbox"/> Certain defects in the international application VIII <input type="checkbox"/> Certain observations on the international application

Date of submission of the demand 31 October 1998 (31.10.1998)	Date of completion of this report 03 August 1999 (03.08.1999)
Name and mailing address of the IPEA/EP European Patent Office D-80298 Munich, Germany Facsimile No. 49-89-2399-4465	Authorized officer  Telephone No. 49-89-2399-0



# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP98/02553

## I. Basis of the report

### 1. With regard to the **elements** of the international application:\*

- ☒ the international application as originally filed
- ☐ the description:  
 pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the claims:  
 pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, as amended (together with any statement under Article 19  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the drawings:  
 pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the sequence listing part of the description:  
 pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

### 2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

### 3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

### 4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/fig \_\_\_\_\_

### 5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17)

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP98/02553

## III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

1. The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

☐ the entire international application.

☒ claims Nos. 2

because:

☐ the said international application, or the said claims Nos. \_\_\_\_\_  
relate to the following subject matter which does not require an international preliminary examination (*specify*):

☒ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. 2  
are so unclear that no meaningful opinion could be formed (*specify*):

Claim 2 contains 47 references to preference ("preferred", "preferably"), 29 optional features ("optionally"), 43 references to examples (e.g. "for instance") and 13 vague terms "low quantitiy", and consequently the intended scope of this claim is completely unclear.

☐ the claims, or said claims Nos. \_\_\_\_\_ are so inadequately supported by the description that no meaningful opinion could be formed.

☐ no international search report has been established for said claims Nos. \_\_\_\_\_

2. A meaningful international preliminary examination cannot be carried out due to the failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions:

☐ the written form has not been furnished or does not comply with the standard.

☐ the computer readable form has not been furnished or does not comply with the standard.

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.  
PCT/EP 98/02553

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

### 1. Statement

Novelty (N)	Claims	1, 3-7	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	1, 3-7	NO
Industrial applicability (IA)	Claims	1, 3-7	YES
	Claims		NO

### 2. Citations and explanations

a) The following documents are cited in this report:

D1: EP-A- 380 127

D2: EP-A- 656 224

D3: EP-A- 641 817

D4: WO-A-96/01863

D5: WO-A-96/31552.

b) None of the search report citations describes filter materials based on the special thermoplastic polymers specified in independent Claim 1. Therefore, novelty can be acknowledged for the subject matter of the application.

c) The closest prior art is represented by documents D1 and D2, which have already been discussed in the description and relate to multilayered filter materials of an analogous structure that are used for the same purpose as those in the present application. The second filter layer according to D1 and D2 is generally prepared from heat-sealable synthetic fibres, only polyethylenes, propylenes and vinyl chloride/vinyl acetate copolymers being specifically mentioned. Therefore, the subject

matter of independent Claims 1 and 7 can be seen as a new selection from the general technical teaching of D1 and D2.

d) The objective technical problem to be solved by this selection therefore consists in rendering the products of D1 and D2 completely compostable. There is no doubt that this aim can also be achieved using the claimed filters.

e) However, a person skilled in the art faced with the problem defined above can derive a number of references to its solution from the relevant prior art:

- D3 relates to thermoplastically-processable and compostable aliphatic polyester amides which are suitable for preparing fibres and filaments and can serve not only as an adhesive but also as a coating for paper and cellulose (Claim 1; page 4, lines 27-29 and 51-54; page 5, line 3; page 7, line 12).

- D4 gives analogous teaching for aliphatic polyester urethanes (abstract; Claims 32 and 33; page 15, lines 9-25).

- The same references can be found in D5 regarding thermoplastic aliphatic copolyesters (abstract; Claims 47, 48, 52; page 4; lines 17-30; page 13, lines 19-31).

Therefore, it was obvious and inventive input was not required in order to use fibres prepared from the polymers according to D3-D5 in the filters of D1 and D2 in order to achieve improved compostability.

**INTERNATIONAL PRELIMINARY EXAMINATION REPORT**

International application No.

PCT/EP 98/02553

- f) The features of dependent Claims 3 to 6 are known from D1 and D2 and cannot therefore confer an inventive step.
  
- g) There is no doubt that the subject matter of the application is industrially applicable, e.g. for the manufacture of tea and coffee filters.

**INTERNATIONAL PRELIMINARY EXAMINATION REPORT**

International application No.

PCT/EP 98/02553

**VII. Certain defects in the international application**

The following defects in the form or contents of the international application have been noted:

Figures 2 and 3 do not comply with PCT Rule 11.11.

## VIII. Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

1. As is clear from Figures 1b and 1c (see also page 10), the finished product is no longer "two-layered", since the different fibres pervade and cover one another, thus forming both a macroscopic and a microscopic uniform "layer". Consequently, Claim 1 contradicts the description.
2. The features "pine wood" and "non-coniferous wood" in Claim 3 are not supported by the description.
3. The unclear term "similar" should be deleted (Claim 3).
4. The last paragraph on page 3 is redundant.
5. The number "1" on page 6, line 1 is impossible, since a diisocyanate must contain at least 3 C atoms.

VERTRAG ÜBER DIE INTERNATIONALE ZUSAMMENARBEIT  
AUF DEM GEBIET DES PATENTWESENS

PCT

REC'D 05 AUG 1999

INTERNATIONALER VORLÄUFIGER PRÜFUNGSBERICHT **WIPO** **PCT**

(Artikel 36 und Regel 70 PCT)

20

Aktenzeichen des Anmelders oder Anwalts <b>Le A 32 344-PC KM</b>	<b>WEITERES VORGEHEN</b> siehe Mitteilung über die Übersendung des internationalen vorläufigen Prüfungsberichts (Formblatt PCT IPEA 416)	
Internationales Aktenzeichen <b>PCT/EP 98/02553</b>	Internationales Anmeldedatum (Tag, Monat, Jahr) <b>30/04/1998</b>	Prioritätsdatum (Tag, Monat, Jahr) <b>13/05/1997</b>
Internationale Patentklassifikation (IPK) oder nationale Klassifikation und IPK <b>B01D39/16</b>		
Anmelder <b>BAYER AKTIENGESELLSCHAFT et al.</b>		

1. Der internationale vorläufige Prüfungsbericht wurde von der mit der internationalen vorläufigen Prüfung beauftragten Behörde erstellt und wird dem Anmelder gemäß Artikel 36 übermittelt.



2. Dieser **BERICHT** umfaßt insgesamt 7 Blätter einschließlich dieses Deckblatts.

☐ Außerdem liegen dem Bericht **ANLAGEN** bei; dabei handelt es sich um Blätter mit Beschreibungen, Ansprüchen und/oder Zeichnungen, die geändert wurden und diesem Bericht zugrunde liegen, und/oder Blätter mit vor dieser Behörde vorgenommenen Berichtigungen (siehe Regel 70.16 und Abschnitt 607 der Verwaltungsvorschriften zum PCT)

Diese Anlagen umfassen insgesamt \_\_\_\_\_ Blätter.

3. Dieser Bericht enthält Angaben und die entsprechenden Seiten zu folgenden Punkten:

- I ☒ Grundlage des Berichts
- II ☐ Priorität
- III ☒ Keine Erstellung eines Gutachtens über Neuheit, erfinderische Tätigkeit und gewerbliche Anwendbarkeit
- IV ☐ Mangelnde Einheitlichkeit der Erfindung
- V ☒ Begründete Feststellung nach Artikel 35(2) hinsichtlich der Neuheit, der erfinderischen Tätigkeit und der gewerblichen Anwendbarkeit; Unterlagen und Erklärungen zur Stützung dieser Feststellung
- VI ☐ Bestimmte angeführte Unterlagen
- VII ☒ Bestimmte Mängel der internationalen Anmeldung
- VIII ☒ Bestimmte Bemerkungen zur internationalen Anmeldung

Datum der Einreichung des Antrags <b>31/10/1998</b>	Datum der Fertigstellung dieses Berichts <b>03.08.99</b>
Name und Postanschrift der mit der internationalen vorläufigen Prüfung beauftragten Behörde  Europäisches Patentamt D-80298 München Tel. (+49-89) 2399-0, Tx: 523656 epmu d Fax: (+49-89) 2399-4465	Bevollmächtigter Bediensteter  <b>H. Senftl</b> Tel.



## I. Grundlage des Berichts

1. Dieser Bericht wurde erstellt auf der Grundlage (Ersatzblätter, die dem Anmeldeamt auf eine Aufforderung nach Artikel 14 hin vorgelegt wurden, gelten im Rahmen dieses Berichts als "ursprünglich eingereicht" und sind ihm nicht beigelegt, weil sie keine Änderungen enthalten.)

- ☒ der internationalen Anmeldung in der ursprünglich eingereichten Fassung
- ☐ der Beschreibung: Seite  
Seite  
Seite  
in der ursprünglich eingereichten Fassung  
eingereicht mit dem Antrag  
eingereicht mit Schreiben vom
- ☐ der Ansprüche: Nr.  
Nr.  
Nr.  
Nr.  
in der ursprünglich eingereichten Fassung  
in der nach Artikel 19 geänderten Fassung  
eingereicht mit dem Antrag  
eingereicht mit Schreiben vom
- ☐ der Zeichnungen: Blatt / Abb.  
Blatt / Abb.  
Blatt / Abb.  
in der ursprünglich eingereichten Fassung  
eingereicht mit dem Antrag  
eingereicht mit Schreiben vom

2. Aufgrund der Änderungen sind folgende Unterlagen fortgefallen:

- ☐ Beschreibung: Seite
- ☐ Ansprüche: Nr.
- ☐ Zeichnungen: Blatt / Abb.

3. ☐ Dieser Bericht ist ohne Berücksichtigung (von einigen) der Änderungen erstellt worden, da diese aus den im Zusatzfeld angegebenen Gründen nach Auffassung der Behörde über den Offenbarungsgehalt in der ursprünglich eingereichten Fassung hinausgehen (Regel 70 2 c)).

4. Etwaige zusätzliche Bemerkungen:

## III. Keine Erstellung eines Gutachtens über Neuheit, erfinderische Tätigkeit und gewerbliche Anwendbarkeit

Folgende Teile der Anmeldung wurden nicht daraufhin geprüft, ob die beanspruchte Erfindung als neu, auf erfinderischer Tätigkeit beruhend (nicht offensichtlich) und gewerblich anwendbar anzusehen ist:

- ☐ die gesamte internationale Anmeldung.
- ☒ die Ansprüche Nr. 2

Begründung:

- ☐ Die genannte internationale Anmeldung bzw. die obengenannten Ansprüche Nr. beziehen sich auf den nachstehenden Gegenstand, für den keine internationale vorläufige Prüfung durchgeführt werden braucht (*genaue Angaben*):

- ☒ Die Beschreibung, die Ansprüche oder die Zeichnungen (*machen Sie bitte nachstehend genaue Angaben*) oder die oben genannten Ansprüche sind so unklar, daß kein sinnvolles Gutachten erstellt werden konnte (*genaue Angaben*):

Anspruch 2 enthält 47 Vorzugsangaben ("bevorzugt", "vorzugsweise"), 29 fakultative Merkmale ("gegebenenfalls"), 43 beispielhafte Aufzählungen (z. B. "beispielsweise") und 13 mal den vagen Begriff "geringe Menge", so daß der beabsichtigte Umfang dieses Anspruchs vollkommen unklar ist.

- ☐ Die Ansprüche bzw. die obengenannten Ansprüche sind so unzureichend durch die Beschreibung gestützt, daß kein sinnvolles Gutachten erstellt werden konnte.

- ☐ Für die obengenannten Ansprüche wurde kein internationaler Recherchenbericht erstellt.

V. Begründete Feststellung nach Artikel 35 (2) hinsichtlich der Neuheit, der erfinderischen Tätigkeit und der gewerblichen Anwendbarkeit; Unterlagen und Erklärungen zur Stützung dieser Feststellung

1. Feststellung

Neuheit	Ansprüche	1, 3-7	JA
	Ansprüche		NEIN
Erfinderische Tätigkeit	Ansprüche		JA
	Ansprüche	1, 3-7	NEIN
Gewerbliche Anwendbarkeit	Ansprüche	1, 3-7	JA
	Ansprüche		NEIN

2. Unterlagen und Erklärungen

a) In diesem Bericht werden die folgenden Dokumente zitiert:

D1= EP-A- 380 127  
D2= EP-A- 656 224  
D3= EP-A- 641 817  
D4= WO-A-96/01863  
D5= WO-A-96/31552.

- b) Keines der im Recherchenbericht genannten Dokumente beschreibt Filtermaterialien auf Basis der im unabhängigen Anspruch 1 aufgezählten speziellen thermoplastischen Polymeren. Die Neuheit des Anmeldungsgegenstandes ist daher anzuerkennen.
- c) Nächster Stand der Technik sind die bereits in der Beschreibung diskutierten Druckschriften D1 und D2, welche mehrlagige Filtermaterialien mit analogem Aufbau und gleichem Anwendungszweck wie in der vorliegenden Anmeldung betreffen. Die zweite Lage der Filter gemäß D1 und D2 wird allgemein aus heißsiegelbaren synthetischen Fasern hergestellt, wobei speziell nur Polyäthylen, Polypropylen und Vinylchlorid/Vinylacetat-Copolymere genannt sind. Der Gegenstand der unabhängigen Ansprüche 1 und 7 ist somit als neue Auswahl aus der allgemeinen technischen Lehre von D1 und D2 anzusehen.
- d) Die durch diese Auswahl zu lösende objektive technische Aufgabe soll darin bestehen, die Produkte von D1 und D2 voll kompostierbar zu machen. Es besteht kein Zweifel, daß

dieses Ziel mit den anmeldungsgemäßen Filtern auch erreicht wird.

- e) Ein vor die oben definierte Aufgabe gestellter Fachmann erhielt jedoch aus dem einschlägigen Stand der Technik eine Reihe von Hinweisen zu deren Lösung:
- D3 betrifft thermoplastisch verarbeitbare, kompostierbare, aliphatische Polyesteramide, welche zur Herstellung von Fasern und Filamenten geeignet sind, als Klebstoff dienen können und auch zur Beschichtung von Papier und Cellulose verwendet werden (Anspruch 1; S. 4, Zeilen 27-29 und 51-54; S. 5 Z. 3; S. 7, Z. 12).
  - D4 gibt eine analoge Lehre für aliphatische Polyesterurethane (Abstract; Claims 32 and 33; S. 15, Z. 9-25).
  - Die gleichen Hinweise finden sich in D5 für thermoplastische aliphatische Copolyester (Abstract; Claims 47, 48, 52; S. 4; Z. 17-30; S. 13, Z. 19-31).
- Es war somit naheliegend und mit keiner erfinderischen Tätigkeit verbunden, Fasern aus den Polymeren gemäß D3-D5 in den Filtern von D1 und D2 einzusetzen, wenn eine verbesserte Kompostierbarkeit erreicht werden sollte.
- f) Die Merkmale der abhängigen Ansprüche 3-6 sind aus D1 und D2 bekannt und können daher nichts zur erfinderischen Tätigkeit beitragen.
- g) Es besteht kein Zweifel daran, daß der Anmeldungsgegenstand gewerblich anwendbar ist, z. B. zur Herstellung von Tee- und Kaffeefiltern.

VII. Bestimmte Mängel der internationalen Anmeldung

Es wurde festgestellt, daß die internationale Anmeldung nach Form oder Inhalt folgende Mängel aufweist

Fig. 2 und 3 verstoßen gegen Regel 11.11 PCT.

## VIII. Bestimmte Bemerkungen zur internationalen Anmeldung

Zur Klarheit der Patentansprüche, der Beschreibung und der Zeichnungen oder zu der Frage, ob die Ansprüche in vollem Umfang durch die Beschreibung gestützt werden, ist folgendes zu bemerken:

1. Wie aus Fig. 1b und 1c hervorgeht (siehe auch S. 10), ist das fertige Produkt nicht mehr "zweilagig", da die verschiedenen Fasern einander durchdringen und umhüllen und somit eine sowohl makroskopisch als auch mikroskopisch einheitliche "Lage" bilden. Insofern steht Anspruch 1 im Widerspruch zur Beschreibung.
2. Die Merkmale "Nadelholz" und "Laubholz" von Anspruch 3 haben keine Basis in der Beschreibung.
3. Der unklare Begriff "ähnliche" sollte gestrichen werden (*Anspruch 3*).
4. Der letzte Absatz auf S. 3 ist redundant.
5. Die Zahl "1" auf S. 6, Z. 1 ist unmöglich, da ein Diisocyanat mindestens 3 C-Atome enthalten muß.

VERTRAG ÜBER DIE INTERNATIONALE ZUSAMMENARBEIT  
AUF DEM GEBIET DES PATENTWESENS

# PCT

## INTERNATIONALER RECHERCHENBERICHT

(Artikel 18 sowie Regeln 43 und 44 PCT)

Aktenzeichen des Anmelders oder Anwalts <b>Le A 32 344-PC KM</b>	<b>WEITERES VORGEHEN</b>	siehe Mitteilung über die Übermittlung des internationalen Recherchenberichts (Formblatt PCT/ISA/220) sowie, soweit zutreffend, nachstehender Punkt 5
Internationales Aktenzeichen <b>PCT/EP 98/02553</b>	Internationales Anmeldedatum (Tag, Monat, Jahr) <b>30/04/1998</b>	(Frühestes) Prioritätsdatum (Tag, Monat, Jahr) <b>13/05/1997</b>
Anmelder <b>BAYER AKTIENGESELLSCHAFT et al.</b>		

Dieser internationale Recherchenbericht wurde von der internationalen Recherchenbehörde erstellt und wird dem Anmelder gemäß Artikel 18 übermittelt. Eine Kopie wird dem Internationalen Büro übermittelt.

Dieser internationale Recherchenbericht umfaßt insgesamt 3 Blätter.

☒ Darüber hinaus liegt ihm jeweils eine Kopie der in diesem Bericht genannten Unterlagen zum Stand der Technik bei:

1. ☐ Bestimmte Ansprüche haben sich als nichtrecherchierbar erwiesen (siehe Feld I).
2. ☐ Mangelnde Einheitlichkeit der Erfindung (siehe Feld II).
3. ☐ In der internationalen Anmeldung ist ein Protokoll einer Nucleotid- und/oder Aminosäuresequenz offenbart; die internationale Recherche wurde auf der Grundlage des Sequenzprotokolls durchgeführt.
  - ☐ das zusammen mit der internationalen Anmeldung eingereicht wurde.
  - ☐ das vom Anmelder getrennt von der internationalen Anmeldung vorgelegt wurde.
  - ☐ dem jedoch keine Erklärung beigelegt war, daß der Inhalt des Protokolls nicht über den Offenbarungsgehalt der internationalen Anmeldung in der eingereichten Fassung hinausgeht.
  - ☐ das von der Internationalen Recherchenbehörde in die ordnungsgemäße Form übertragen wurde.
4. Hinsichtlich der **Bezeichnung der Erfindung**
  - ☒ wird der vom Anmelder eingereichte Wortlaut genehmigt.
  - ☐ wurde der Wortlaut von der Behörde wie folgt festgesetzt:
5. Hinsichtlich der **Zusammenfassung**
  - ☒ wird der vom Anmelder eingereichte Wortlaut genehmigt.
  - ☐ wurde der Wortlaut nach Regel 38.2b) in der Feld III angegebenen Fassung von dieser Behörde festgesetzt. Der Anmelder kann der Internationalen Recherchenbehörde innerhalb eines Monats nach dem Datum der Absendung dieses internationalen Recherchenberichts eine Stellungnahme vorlegen.
6. Folgende Abbildung der **Zeichnungen** ist mit der Zusammenfassung zu veröffentlichen:
 

Abb. Nr. _____	<input type="checkbox"/> wie vom Anmelder vorgeschlagen	<input checked="" type="checkbox"/> keine der Abb.
	<input type="checkbox"/> weil der Anmelder selbst keine Abbildung vorgeschlagen hat.	
	<input type="checkbox"/> weil diese Abbildung die Erfindung besser kennzeichnet.	

## A. KLASSIFIZIERUNG DES ANMELDUNGSGEGENSTANDES

IPK 6 B01D39/16 D21H27/08 A47J31/08 B65D81/34

Nach der Internationalen Patentklassifikation (IPK) oder nach der nationalen Klassifikation und der IPK

## B. RECHERCHIERTE GEBIETE

Recherchierter Mindestprüfstoff (Klassifikationssystem und Klassifikationssymbole)

IPK 6 B01D D21H A47J B65D

Recherchierte aber nicht zum Mindestprüfstoff gehörende Veröffentlichungen, soweit diese unter die recherchierten Gebiete fallen

Während der internationalen Recherche konsultierte elektronische Datenbank (Name der Datenbank und evtl. verwendete Suchbegriffe)

## C. ALS WESENTLICH ANGESEHENE UNTERLAGEN

Kategorie	Bezeichnung der Veröffentlichung, soweit erforderlich unter Angabe der in Betracht kommenden Teile	Betr. Anspruch Nr.
P, A	WO 97 40111 A (BAYER AG) 30. Oktober 1997 siehe Ansprüche 1,2 ---	1,2
A	EP 0 593 975 A (BAYER A) 27. April 1994 siehe Ansprüche 1-4 ---	1,2
A	WO 96 01863 A (ALKO GROUP LTD.) 25. Januar 1996 siehe Seite 15, Zeile 9 - Zeile 21: Ansprüche 1-32 ---	1,2
A	EP 0 641 817 A (BAYER AG) 8. März 1995 siehe Seite 4, Zeile 47 - Zeile 54: Anspruch 1 ---	1,2
	--- -/--	



Weitere Veröffentlichungen sind der Fortsetzung von Feld C zu entnehmen



Siehe Anhang Patentfamilie

Besondere Kategorien von angegebenen Veröffentlichungen

"A" Veröffentlichung, die den allgemeinen Stand der Technik definiert, aber nicht als besonders bedeutsam anzusehen ist

"E" älteres Dokument, das jedoch erst am oder nach dem internationalen Anmeldedatum veröffentlicht worden ist

"L" Veröffentlichung, die geeignet ist, einen Prioritätsanspruch zweifelhaft erscheinen zu lassen, oder durch die das Veröffentlichungsdatum einer anderen im Recherchenbericht genannten Veröffentlichung belegt werden soll oder die aus einem anderen besonderen Grund angegeben ist (wie ausgeführt)

"O" Veröffentlichung, die sich auf eine mündliche Offenbarung, eine Benutzung, eine Ausstellung oder andere Maßnahmen bezieht

"P" Veröffentlichung, die vor dem internationalen Anmeldedatum, aber nach dem beanspruchten Prioritätsdatum veröffentlicht worden ist

"T" Spätere Veröffentlichung, die nach dem internationalen Anmeldedatum oder dem Prioritätsdatum veröffentlicht worden ist und mit der Anmeldung nicht kollidiert, sondern nur zum Verständnis des der Erfindung zugrundeliegenden Prinzips oder der ihr zugrundeliegenden Theorie angegeben ist

"X" Veröffentlichung von besonderer Bedeutung, die beanspruchte Erfindung kann allein aufgrund dieser Veröffentlichung nicht als neu oder auf erfinderscher Tätigkeit beruhend betrachtet werden

"Y" Veröffentlichung von besonderer Bedeutung, die beanspruchte Erfindung kann nicht als auf erfinderscher Tätigkeit beruhend betrachtet werden, wenn die Veröffentlichung mit einer oder mehreren anderen Veröffentlichungen dieser Kategorie in Verbindung gebracht wird und diese Verbindung für einen Fachmann naheliegend ist

"Z" Veröffentlichung, die Mitglied derselben Patentfamilie ist

Datum des Abschlusses der internationalen Recherche

15. September 1998

Abschließungsdatum des internationalen Recherchenberichts

23/09/1998

Name und Postanschrift der Internationalen Recherchenbehörde

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Bevollmächtigter Bediensteter

Bertram, H



## C.(Fortsetzung) ALS WESENTLICH ANGESEHENE UNTERLAGEN

Kategorie	Bezeichnung der Veröffentlichung, soweit erforderlich unter Angabe der in Betracht kommenden Teile	Betr. Anspruch Nr.
A	PATENT ABSTRACTS OF JAPAN vol. 95, no. 3, 28. April 1995 & JP 06 345956 A (TOKUYAMA SODA CO LTD), 20. Dezember 1994 siehe Zusammenfassung ---	1,2
A	WO 97 15609 A (ECOPOL) 1. Mai 1997 siehe das ganze Dokument ---	1,2
A	WO 96 31552 A (NESTE OY) 10. Oktober 1996 siehe Ansprüche 1-41,45-47 ---	1,2
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A	EP 0 656 224 A (PAPCEL) 7. Juni 1995 in der Anmeldung erwähnt siehe Ansprüche 1-13 ---	1,3-7
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## INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 98/02553

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			AU 2509397 A	12-11-1997
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			US 5173154 A	22-12-1992

**CLASS 442, FABRIC (WOVEN, KNITTED, OR NONWOVEN TEXTILE OR CLOTH, ETC.)**

reinforced inorganic matrix materials, per se, are classified in Class 428, subclasses 292.1+.

**SECTION I - CLASS DEFINITION**

This is the class for woven, knitted, nonwoven, or felt article claimed as a fabric, having structural integrity resulting from forced interassociation of fibers, filaments, or strands, the forced interassociation resulting from processes such as weaving, knitting, needling, hydroentangling, chemical coating or impregnation, autogenous bonding (i.e., heat- and/or pressure-promoted welding or solvent bonding) or felting, but not articles such as paper, fiber-reinforced plastic matrix materials (FRP), or other fiber-reinforced materials wherein fibers are present only as a filler material.

**SECTION II - LINES WITH OTHER CLASSES AND WITHIN THIS CLASS**

This class is an integral part of Class 428 (after subclass 223). It incorporates all the definitions and rules as to subject matter of Class 428.

This is not the location for a woven or knitted fabric which is no more than, respectively, the product of a loom or knitting machine which has not been further treated. Such a product of a loom is classified in Class 139, subclasses 420+. Such a product from a knitting machine is classified in Class 66, subclasses 169+.

This is the location for a woven or knitted fabric which has been subjected to further treatment after having been removed, respectively, from the loom or knitting machine, and all treated and untreated nonwoven fabrics, except those treated by a drying process or a chemical modification which effects chemical reaction within the material composing the woven, knitted, or nonwoven fabric. A fabric which has been dyed or subjected to chemical modification effecting reaction within the material composing the fabric is classified in Class 8, except where the chemical modification results in converting the material composing the fabric to carbon. Carbon fabrics, per se, are classified in Class 423, subclasses 447.1+.

This is not the location for nonwoven sheets produced by wet-laying fiber slurries on a screen (i.e., papers). Papers, per se, are classified in Class 162, subclasses 100+.

Fiber-reinforced plastic matrix materials (FRP) or fiber-

**SUBCLASSES****1 SCRIM (E.G., OPEN NET OR MESH, GAUZE, LOOSE OR OPEN WEAVE OR KNIT, ETC.):**

This subclass is indented under the class definition. Subject matter wherein the fabric is a woven, nonwoven, or knitted fabric which is specifically described as having an open or loose configuration of strands or filamentary material.

- (1) Note. Scrim includes but is not limited to open net, mesh, gauze, loosely woven, or knitted fabrics. A characteristic of most scrims is the ability to see readily through the fabric from a distance.

**2 Woven scrim:**

This subclass is indented under subclass 1. Subject matter wherein the scrim is a woven fabric.

- (1) Note. A woven fabric is composed of at least one set of strands or strips in a warp direction interengaged with at least one set of strands or strips in a fill or weft direction, the fill or weft direction being at an angle other than 0° relative to the warp direction.

**SEE OR SEARCH THIS CLASS, SUBCLASS:**

181+, for woven fabrics not meeting the definition of scrim as given above.

**3 Including a multifilament fiber precoated with other than free metal or alloy prior to weaving:**

This subclass is indented under subclass 2. Subject matter wherein the woven scrim contains a multifilament fiber which has been coated with a non-metallic material prior to incorporation into the woven scrim.

**4 Comprising a composite fiber:**

This subclass is indented under subclass 2. Subject matter wherein the woven scrim contains at least one fiber comprising more than

- one chemically distinct component such as a sheath/core fiber, an islands-in-sea fiber, a wrapped fiber, etc.
- 5 Comprising at least two chemically different fibers:**  
This subclass is indented under subclass 2. Subject matter wherein the woven scrim contains two or more distinct fibers which differ from one another chemically.
- 6 Metal or metal-coated fiber-containing scrim:**  
This subclass is indented under subclass 2. Subject matter wherein the woven scrim contains metal fiber or metal-coated fiber.
- 7 Including an additional free metal or alloy constituent:**  
This subclass is indented under subclass 6. Subject matter wherein the woven scrim contains metal fiber or metal-coated fiber and an additional free metal or alloy constituent in a form such as particulate material, film, foil, sheet, or fabric layer.
- 8 Particulate free metal or alloy constituent:**  
This subclass is indented under subclass 7. Subject matter wherein the additional free metal or alloy constituent is in the form of particulate material.
- 9 Including a foam layer:**  
This subclass is indented under subclass 6. Subject matter wherein the woven scrim containing metal fiber or metal-coated fiber has an open or closed cellular layer associated therewith.
- 10 Including a woven fabric which is not a scrim:**  
This subclass is indented under subclass 6. Subject matter wherein the woven scrim containing metal fiber or metal-coated fiber is associated with at least one additional woven fabric which is not a scrim.
- 11 Including a nonwoven fabric which is not a scrim:**  
This subclass is indented under subclass 10. Subject matter wherein the woven scrim containing metal fiber or metal-coated fiber has a woven fabric and a nonwoven fabric which is not a scrim associated therewith.
- 12 Including a paper layer:**  
This subclass is indented under subclass 6. Subject matter wherein the woven scrim containing metal fiber or metal-coated fiber has a paper layer associated therewith.
- 13 Including a nonwoven fabric which is not a scrim:**  
This subclass is indented under subclass 6. Subject matter wherein the woven scrim containing metal fiber or metal-coated fiber has a nonwoven fabric which is not a scrim associated therewith.
- 14 Two or more nonwoven fabric layers:**  
This subclass is indented under subclass 13. Subject matter wherein the woven scrim containing metal fiber or metal-coated fiber has two or more nonwoven fabric layers which are not scrim associated therewith.
- 15 Including a natural or synthetic rubber layer:**  
This subclass is indented under subclass 6. Subject matter wherein the woven scrim containing metal fiber or metal-coated fiber has a natural or synthetic rubber layer associated therewith.
- 16 Including a preformed film, foil, or sheet:**  
This subclass is indented under subclass 6. Subject matter wherein the woven scrim containing metal fiber or metal-coated fiber has a preformed material associated herewith, the preformed material having structural integrity prior to association with the woven scrim and being in the form of a film, foil, or sheet.
- 17 Including a layer derived from a water-settable material (e.g., cement, gypsum, etc.):**  
This subclass is indented under subclass 6. Subject matter wherein the woven scrim which contains metal or metal-coated fiber has a water-settable material (e.g., cement, gypsum, etc.) in the form of a distinct layer associated therewith.
- 18 Including a ceramic or glass layer:**  
This subclass is indented under subclass 6. Subject matter wherein the woven scrim which contains metal or metal-coated fiber has at least one additional layer in the form of ceramic or glass associated therewith.

- 19 Including a coating or impregnation of synthetic polymeric material:**  
This subclass is indented under subclass 6. Subject matter wherein the woven scrim which contains metal or metal-coated fiber has at least one synthetic polymeric coating or impregnation associated therewith.
- 20 Inorganic fiber-containing scrim:**  
This subclass is indented under subclass 2. Subject matter wherein the woven scrim comprises inorganic fiber.
- 21 Including a carbon or carbonized fiber:**  
This subclass is indented under subclass 20. Subject matter wherein the inorganic fiber comprises a carbon (graphite) or fiber material which has been subjected to carbonization.
- 22 Including a foam layer:**  
This subclass is indented under subclass 20. Subject matter wherein the woven scrim comprises inorganic fiber which has an open or closed cellular layer associated therewith.
- 23 Including a metal layer:**  
This subclass is indented under subclass 20. Subject matter wherein the woven scrim comprises inorganic fiber which has a metal layer associated therewith.
- 24 Including an additional scrim layer:**  
This subclass is indented under subclass 20. Subject matter wherein the woven scrim which comprises inorganic fiber has at least one additional scrim layer associated therewith.
- 25 Including a woven fabric which is not a scrim:**  
This subclass is indented under subclass 20. Subject matter wherein the woven scrim which comprises inorganic fiber is associated with an additional woven fabric which is not a scrim.
- 26 Including a nonwoven fabric which is not a scrim:**  
This subclass is indented under subclass 20. Subject matter wherein the woven scrim which comprises inorganic fiber has at least one nonwoven fabric which is not a scrim associated therewith.
- 27 Including a preformed film, foil, or sheet:**  
This subclass is indented under subclass 20. Subject matter wherein the woven scrim which comprises inorganic fiber has a preformed material associated therewith, the preformed material having had structural integrity prior to association with the woven scrim and being in the form of a film, foil, or sheet.
- 28 Including a mica layer:**  
This subclass is indented under subclass 20. Subject matter wherein the woven scrim which comprises inorganic fiber has a mica layer associated therewith.
- 29 Including a coating or impregnation containing particulate material other than fiber:**  
This subclass is indented under subclass 20. Subject matter wherein the woven scrim which comprises inorganic fiber has a coating or impregnation which contains nonfibrous particulate material associated therewith.
- 30 Including a foam layer:**  
This subclass is indented under subclass 2. Subject matter wherein the woven scrim has at least one additional layer which is an open or closed cellular layer associated therewith.
- 31 Including a free metal or alloy constituent:**  
This subclass is indented under subclass 2. Subject matter wherein the woven scrim contains a free metal or alloy constituent.
- 32 Including an additional scrim layer:**  
This subclass is indented under subclass 2. Subject matter wherein the woven scrim has an additional scrim layer associated therewith.
- 33 Including a paper layer:**  
This subclass is indented under subclass 2. Subject matter wherein the woven scrim has an additional paper layer associated therewith.
- 34 Two or more paper layers:**  
This subclass is indented under subclass 33. Subject matter wherein the woven scrim has at least two paper layers associated therewith.

- 35 Including a nonwoven fabric which is not a scrim:**  
This subclass is indented under subclass 2. Subject matter wherein the woven scrim has a nonwoven fabric layer which is not a scrim associated therewith.
- 36 Two or more nonwoven layers:**  
This subclass is indented under subclass 35. Subject matter wherein the woven scrim has two or more nonwoven fabric layers (which are not scrim) associated therewith.
- 37 Including a natural or synthetic rubber layer:**  
This subclass is indented under subclass 2. Subject matter wherein the woven scrim has a natural or synthetic rubber layer associated therewith.
- 38 Including a preformed film, foil, or sheet:**  
This subclass is indented under subclass 2. Subject matter wherein the woven scrim has a preformed material having had structural integrity prior to association with the woven scrim and being in the form of a film, foil, or sheet.
- 39 Cellulose acetate film or sheet:**  
This subclass is indented under subclass 38. Subject matter wherein the preformed film or sheet is cellulose acetate.
- 40 Fluorinated polyolefin film or sheet:**  
This subclass is indented under subclass 38. Subject matter wherein the preformed film or sheet is fluorinated polyolefin.
- 41 Polyolefin film or sheet:**  
This subclass is indented under subclass 38. Subject matter wherein the preformed film or sheet is polyolefin.
- 42 Including a layer derived from a water-settable material (e.g., cement, gypsum, etc.):**  
This subclass is indented under subclass 2. Subject matter wherein the woven scrim has a water-settable material (e.g., cement, gypsum, etc.) in the form of a distinct layer associated therewith.
- 43 Coated or impregnated:**  
This subclass is indented under subclass 2. Subject matter wherein the woven scrim has a coating or impregnation associated therewith.
- 44 Including particulate material other than fiber in coating or impregnation:**  
This subclass is indented under subclass 43. Subject matter wherein the coating or impregnation contains particulate material not being fibrous.
- 45 Three or more layers:**  
This subclass is indented under subclass 43. Subject matter comprising at least three layers including a woven scrim layer and at least one coating and/or impregnation layer.
- 46 Synthetic polymeric fiber:**  
This subclass is indented under subclass 43. Subject matter wherein the coated or impregnated woven scrim contains synthetic polymeric fiber.
- 47 Nylon fiber:**  
This subclass is indented under subclass 46. Subject matter wherein the synthetic polymeric fiber is nylon (i.e., polyamide).
- 48 Bitumen coating or impregnation:**  
This subclass is indented under subclass 43. Subject matter wherein the coating or impregnation contains pitch, asphalt, tar, bitumen, or the residue from the distillation of mineral oil and/or coal.
- 49 Synthetic polymeric fiber:**  
This subclass is indented under subclass 2. Subject matter wherein the woven scrim contains synthetic polymeric fiber.
- 50 Nonwoven scrim:**  
This subclass is indented under subclass 1. Subject matter wherein the scrim is a nonwoven fabric.
- (1) Note. A nonwoven fabric is composed of strands or fiber material having structural integrity by forced interassociation of the strands or fiber material by mechanical means (e.g., needling, hydroentanglement, etc.) or by the effect of chemical binders or by autogenous

bonding (i.e., heat- and/or pressure-promoted welding or solvent bonding).

SEE OR SEARCH THIS CLASS, SUBCLASS:

327+, for nonwoven fabric not meeting the definition of scrim as given above.

**51 Comprising a composite fiber:**

This subclass is indented under subclass 50. Subject matter wherein the nonwoven scrim comprises fiber containing more than one chemically distinct component such as a sheath/core fiber, an islands-in-sea fiber, a wrapped fiber, etc.

**52 Metal or metal-coated fiber-containing scrim:**

This subclass is indented under subclass 50. Subject matter wherein the nonwoven scrim comprises metal fiber or metal-coated fiber.

**53 Including a paper layer:**

This subclass is indented under subclass 52. Subject matter wherein the nonwoven scrim comprising metal fiber or metal-coated fiber has one additional paper layer associated therewith.

**54 Inorganic fiber-containing scrim:**

This subclass is indented under subclass 50. Subject matter wherein the nonwoven scrim comprises inorganic fiber.

**55 Including a foam layer:**

This subclass is indented under subclass 54. Subject matter wherein the nonwoven scrim which comprises inorganic fiber has a foam layer associated therewith.

**56 Including a foam layer:**

This subclass is indented under subclass 50. Subject matter wherein the nonwoven scrim has an open or closed cellular layer associated therewith.

**57 Including a nonwoven fabric which is not a scrim:**

This subclass is indented under subclass 50. Subject matter wherein the nonwoven scrim has a nonwoven fabric layer which is not a scrim associated therewith.

**58 Coated or impregnated:**

This subclass is indented under subclass 50. Subject matter wherein the nonwoven scrim has a coating or impregnation associated therewith.

**59 COATED OR IMPREGNATED WOVEN, KNIT, OR NONWOVEN FABRIC WHICH IS NOT (A) ASSOCIATED WITH ANOTHER PREFORMED LAYER OR FIBER LAYER OR (B) WITH RESPECT TO WOVEN AND KNIT, CHARACTERIZED, RESPECTIVELY, BY A PARTICULAR OR DIFFERENTIAL WEAVE OR KNIT, WHEREIN THE COATING OR IMPREGNATION IS NEITHER A FOAMED MATERIAL NOR A FREE METAL OR ALLOY LAYER:**

This subclass is indented under the class definition. Subject matter wherein the fabric is coated or impregnated with a material which is neither a foamed material nor a metal or alloy layer, which is not associated with any other preformed layer other than additional coatings or impregnations, and which is not characterized by a particular or differential weave or knit pattern.

**60 Fabric composed of a fiber or strand which is of specific structural definition:**

This subclass is indented under subclass 59. Subject matter wherein the fabric comprises (a) strands having specific structural characteristics such as being composed of individual filaments having different chemical composition twisted together or being core-spun about a non-elastic core; or (b) the strands, per se, or individual filamentary materials comprising the strands are characterized by a specific structural feature such as nonlinearity, a particular cross section or a particular absolute size of any feature, component or dimension (e.g., length, width, or thickness).

**61 Impregnation is confined to a plane disposed between both major fabric surfaces which are essentially free of impregnating material:**

This subclass is indented under subclass 59. Subject matter wherein the fabric is impregnated in such a way as to restrict the impregnant to a location between both major fabric

- surfaces, both major fabric surfaces being essentially free of impregnant.
- 62 Coating produced by extrusion:**  
This subclass is indented under subclass 59. Subject matter wherein the coating has been associated with the fabric by extrusion coating.
- 63 Coating or impregnation formed in situ (e.g., by interfacial condensation, coagulation, precipitation, etc.):**  
This subclass is indented under subclass 59. Subject matter wherein the coating or impregnation is formed by an in situ process on a surface of the fabric, the process being one such as interfacial condensation, coagulation, precipitation, etc.
- 64 Two or more non-extruded coatings or impregnations:**  
This subclass is indented under subclass 59. Subject matter wherein the fabric has at least two coatings or impregnations, no coating or impregnation having been produced by extrusion.
- 65 Each major face of the fabric has at least one coating or impregnation:**  
This subclass is indented under subclass 64. Subject matter wherein each major face of the fabric has one or more coatings or impregnations.
- 66 At least two coatings or impregnations of different chemical composition:**  
This subclass is indented under subclass 65. Subject matter wherein the fabric has two or more chemically different coatings or impregnations.
- 67 Different coatings or impregnations on opposite faces of the fabric:**  
This subclass is indented under subclass 66. Subject matter wherein each face of the fabric has at least one coating or impregnation that is chemically different from at least one coating or impregnation on the opposite face of the fabric.
- 68 At least one coating or impregnation contains particulate material:**  
This subclass is indented under subclass 66. Subject matter wherein at least one coating or impregnation includes particulate material.
- 69 At least one coating or impregnation functions to fix pigments or particles on the surface of a coating or impregnation:**  
This subclass is indented under subclass 68. Subject matter wherein at least one coating or impregnation has pigments or particles on its surface.
- 70 At least one coating or impregnation contains particulate material:**  
This subclass is indented under subclass 65. Subject matter wherein at least one coating or impregnation includes particulate material.
- 71 At least two coatings or impregnations of different chemical composition:**  
This subclass is indented under subclass 64. Subject matter wherein the fabric has at least two coatings or impregnations which are chemically different.
- 72 At least one coating or impregnation contains particulate material:**  
This subclass is indented under subclass 71. Subject matter wherein at least one coating or impregnation includes particulate material.
- 73 At least one coating or impregnation functions to fix pigments or particles on the surface of a coating or impregnation:**  
This subclass is indented under subclass 72. Subject matter wherein at least one coating or impregnation has pigments or particles on its surface.
- 74 At least one coating or impregnation contains particulate material:**  
This subclass is indented under subclass 64. Subject matter wherein at least one coating or impregnation includes particulate material.
- 75 At least one coating or impregnation functions to fix pigments or particles on the surface of a coating or impregnation:**  
This subclass is indented under subclass 74. Subject matter wherein at least one coating or impregnation has pigments or particles on its surface.



- 76 Coating or impregnation specified as porous or permeable to a specific substance (e.g., water vapor, air, etc.):**  
This subclass is indented under subclass 59. Subject matter wherein the coating or impregnation is porous or permeable to water vapor, air, or some other specific substance, the porosity or permeability being specifically stated.
- 77 Coating or impregnation is specified as microporous but is not a foam:**  
This subclass is indented under subclass 76. Subject matter wherein the coating or impregnation is not a foam but is microporous, the porosity being specifically stated.
- 78 Coating or impregnation collects radionuclide or heavy metal:**  
This subclass is indented under subclass 59. Subject matter wherein the coating or impregnation collects or binds radionuclides or heavy metals.
- 79 Coating or impregnation specified as water repellent:**  
This subclass is indented under subclass 59. Subject matter wherein the coating or impregnation is water repellent, the water repellency being specifically stated.
- 80 Also specified as oil repellent:**  
This subclass is indented under subclass 79. Subject matter wherein the coating or impregnation is also oil repellent, the oil repellency being specifically stated.
- 81 Organosilicon containing:**  
This subclass is indented under subclass 79. Subject matter wherein the coating or impregnation includes organosilicon.
- 82 Fluorocarbon containing:**  
This subclass is indented under subclass 79. Subject matter wherein the coating or impregnation includes fluorocarbon.
- 83 Nitrogen containing:**  
This subclass is indented under subclass 79. Subject matter wherein the coating or impregnation includes nitrogen.
- 84 Natural oil or wax containing:**  
This subclass is indented under subclass 79. Subject matter wherein the coating or impregnation includes natural oil or wax.
- 85 Coating or impregnation is specified as weather proof, water vapor resistant, or moisture resistant:**  
This subclass is indented under subclass 59. Subject matter wherein the coating or impregnation is weather proof, water vapor resistant, or moisture resistant, the weather proofness or water vapor resistance or moisture resistance being specifically stated.
- 86 Coating or impregnation is specified as water proof:**  
This subclass is indented under subclass 59. Subject matter wherein the coating or impregnation is water proof, the water proofness being specifically stated.
- 87 Organosilicon containing:**  
This subclass is indented under subclass 86. Subject matter wherein the coating or impregnation includes organosilicon.
- 88 Fluorocarbon containing:**  
This subclass is indented under subclass 86. Subject matter wherein the coating or impregnation includes fluorocarbon.
- 89 Nitrogen containing:**  
This subclass is indented under subclass 86. Subject matter wherein the coating or impregnation includes nitrogen.
- 90 Natural oil or wax containing:**  
This subclass is indented under subclass 86. Subject matter wherein the coating or impregnation includes natural oil or wax.
- 91 Coating or impregnation is oil repellent but not oil or stain release:**  
This subclass is indented under subclass 59. Subject matter wherein the coating or impregnation is oil repellent but not oil or stain release, the oil repellency being specifically stated.

- 92 Fluorocarbon containing:**  
This subclass is indented under subclass 91. Subject matter wherein the coating or impregnation includes fluorocarbon.
- 93 Coating or impregnation improves soil repellency, soil release, or anti-soil redeposition qualities of fabric:**  
This subclass is indented under subclass 59. Subject matter wherein the coating or impregnation improves qualities of fabric such as soil repellency, soil release, or anti-soil redeposition, the improvement being specifically stated.
- 94 Fluorocarbon containing:**  
This subclass is indented under subclass 93. Subject matter wherein the coating or impregnation includes fluorocarbon.
- 95 Linear polyether group chain containing:**  
This subclass is indented under subclass 93. Subject matter wherein the coating or impregnation includes a linear polyether group chain.
- 96 Coating or impregnation provides a fragrance or releases an odor intended to be perceptible to humans:**  
This subclass is indented under subclass 59. Subject matter wherein the coating or impregnation provides a fragrance or releases an odor which is noticeable to humans.
- 97 Coating or impregnation is a lubricant or a surface friction reducing agent other than specified as improving the "hand" of the fabric or increasing the softness thereof:**  
This subclass is indented under subclass 59. Subject matter wherein the coating or impregnation which is not specified as improving the "hand" or increasing the softness of the fabric acts as a lubricant or a surface friction reducing agent.
- (1) Note. The term "hand" when used in connection with a fabric refers to the feel of the fabric when held in one's hand, particularly the softness of the fabric.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
102, for a coating or impregnation which functions to soften or improve the "hand" of the fabric.
- 98 Fluorocarbon containing:**  
This subclass is indented under subclass 97. Subject matter wherein the coating or impregnation includes fluorocarbon.
- 99 Organosilicon containing:**  
This subclass is indented under subclass 97. Subject matter wherein the coating or impregnation includes organosilicon.
- 100 Natural oil or wax containing:**  
This subclass is indented under subclass 97. Subject matter wherein the coating or impregnation includes natural oil or wax.
- 101 Coating or impregnation is antislip or friction-increasing other than specified as an abrasive:**  
This subclass is indented under subclass 59. Subject matter wherein the coating or impregnation has antislip or friction-increasing properties, the properties being specifically stated, and is not referred to as abrasive.
- 102 Coating or impregnation functions to soften the feel of or improve the "hand" of the fabric:**  
This subclass is indented under subclass 59. Subject matter wherein the coating or impregnation softens the feel of or improves the "hand" of the fabric, the softening or "hand" improvement being specifically stated.
- 103 Coating or impregnation improves stiffness of the fabric other than specified as a size:**  
This subclass is indented under subclass 59. Subject matter wherein the coating or impregnation is specifically stated to improve fabric stiffness, the coating not being a size.
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
108, for a coating or impregnation which is specified as a size.
- 104 Coating or impregnation improves elasticity, bendability, resiliency, flexibility, or shape retention of the fabric:**  
This subclass is indented under subclass 59. Subject matter wherein the coating or impregnation is specifically stated to improve fabric elasticity, bendability, resiliency, flexibility, or shape retention.

- 105 Improves elasticity:**  
This subclass is indented under subclass 104. Subject matter wherein the coating or impregnation is specifically stated to improve fabric elasticity.
- 106 Improves shrink resistance:**  
This subclass is indented under subclass 104. Subject matter wherein the coating or impregnation is specifically stated to improve fabric shrink resistance.
- 107 Coating or impregnation provides crease-resistance or wash and wear characteristics:**  
This subclass is indented under subclass 104. Subject matter wherein the coating or impregnation is specifically stated to improve fabric crease-resistance or wash and wear characteristics.
- 108 Coating or impregnation specified as a size:**  
This subclass is indented under subclass 59. Subject matter wherein the coating or impregnation is specifically stated to be a size or sizing material.
- 109 Coating or impregnation improves snag or pull resistance of the fabric:**  
This subclass is indented under subclass 59. Subject matter wherein the coating or impregnation is specifically stated to improve fabric snag or pull resistance.
- 110 Coating or impregnation increases electrical conductivity or antistatic quality:**  
This subclass is indented under subclass 59. Subject matter wherein the coating or impregnation is specifically stated to increase fabric electrical conductivity or antistatic quality.
- 111 Elemental carbon containing:**  
This subclass is indented under subclass 110. Subject matter wherein the coating or impregnation comprises elemental carbon.
- 112 Linear polyether group chain containing:**  
This subclass is indented under subclass 110. Subject matter wherein the coating or impregnation comprises a linear polyether group chain.
- 113 Nitrogen and phosphorus containing:**  
This subclass is indented under subclass 110. Subject matter wherein the coating or impregnation comprises nitrogen and phosphorus.
- 114 Phosphorus containing:**  
This subclass is indented under subclass 110. Subject matter wherein the coating or impregnation contains phosphorus.
- 115 Nitrogen containing:**  
This subclass is indented under subclass 110. Subject matter wherein the coating or impregnation comprises nitrogen.
- 116 Sulphur containing:**  
This subclass is indented under subclass 110. Subject matter wherein the coating or impregnation comprises sulphur.
- 117 Coating or impregnation is electrical insulation-providing, -improving, or -increasing or conductivity-reducing:**  
This subclass is indented under subclass 59. Subject matter wherein the coating or impregnation is specifically stated to provide, improve, or increase fabric electrical insulating or reduce fabric conductivity.
- 118 Coating or impregnation is water absorbency-increasing or hydrophilicity-increasing or hydrophilicity-imparting:**  
This subclass is indented under subclass 59. Subject matter wherein the coating or impregnation is specifically stated to increase fabric or impart to the fabric water absorbency or hydrophilicity.
- 119 Polyether group containing:**  
This subclass is indented under subclass 118. Subject matter wherein the coating or impregnation comprises a polyether group.
- 120 Coating or impregnation absorbs sound:**  
This subclass is indented under subclass 59. Subject matter wherein the coating or impregnation is specifically stated to absorb sound.

- 121 Coating or impregnation absorbs chemical material other than water:**  
This subclass is indented under subclass 59. Subject matter wherein the coating or impregnation is specifically stated to absorb chemical material (e.g., heavy metal, etc., but not water).
- 122 Chemical material is one used in biological or chemical warfare:**  
This subclass is indented under subclass 121. Subject matter wherein the coating or impregnation is specifically stated to be used in biological or chemical warfare.
- 123 Coating or impregnation functions biologically (e.g., insect repellent, antiseptic, insecticide, bactericide, etc.):**  
This subclass is indented under subclass 59. Subject matter wherein the coating or impregnation is specifically stated to function biologically, including functioning as an insect repellent, antiseptic, insecticide, bactericide, etc.
- 124 Inhibits mildew:**  
This subclass is indented under subclass 123. Subject matter wherein the coating or impregnation is specifically stated to inhibit the growth of mildew.
- 125 Insect repellent:**  
This subclass is indented under subclass 123. Subject matter wherein the coating or impregnation is specifically stated to be an insect repellent.
- 126 Coating or impregnation is chemically inert or of stated nonreactance:**  
This subclass is indented under subclass 59. Subject matter wherein the coating or impregnation is specifically stated to be chemically inert or nonreactant.
- 127 Oxygen or ozone resistant:**  
This subclass is indented under subclass 126. Subject matter wherein the coating or impregnation is specifically stated to be resistant to oxygen or ozone.
- 128 Organic solvent resistant (e.g., dry cleaning fluid, etc.):**  
This subclass is indented under subclass 126. Subject matter wherein the coating or impregnation is specifically stated to be resistant to organic solvents such as dry cleaning fluid.
- 129 Acid or alkali resistant:**  
This subclass is indented under subclass 126. Subject matter wherein the coating or impregnation is specifically stated to be resistant to acid or alkali.
- 130 Coating or impregnation contains an optical bleach or brightener or functions as an optical bleach or brightener (e.g., it masks fabric yellowing, etc.):**  
This subclass is indented under subclass 59. Subject matter wherein the coating or impregnation is specifically stated to contain an optical bleach or brightener, act as an optical bleach or brightener, or mask fabric yellowing.
- 131 Coating or impregnation provides protection from radiation (e.g., U.V., visible light, I.R., microwave, high energy particle, etc.) or heat-retention thru radiation absorption:**  
This subclass is indented under subclass 59. Subject matter wherein the coating or impregnation is specifically stated to provide protection from radiation or absorption of radiation, the radiation being U.V., visible light, I.R., microwave, high energy particle, etc.
- 132 Radiation reflective:**  
This subclass is indented under subclass 131. Subject matter wherein the coating or impregnation is specifically stated to reflect radiation.
- 133 Radiation absorptive:**  
This subclass is indented under subclass 131. Subject matter wherein the coating or impregnation is specifically stated to absorb radiation.
- 134 Coating or impregnation is resistant to penetration by solid implements:**  
This subclass is indented under subclass 59. Subject matter wherein the coating or impregnation is specifically stated to resist penetration by solid implements such as bullets, knives, etc.

- 135 Ballistic resistant:**  
This subclass is indented under subclass 134. Subject matter wherein the coating or impregnation is specifically stated to resist penetration by projectiles.
- 136 Coating or impregnation provides heat or fire protection:**  
This subclass is indented under subclass 59. Subject matter wherein the coating or impregnation is specifically stated to provide protection from heat or fire.
- 137 Coated or impregnated asbestos fabric:**  
This subclass is indented under subclass 136. Subject matter wherein the fabric comprises an asbestos fabric.
- 138 Coating or impregnation is specified as an intumescent material:**  
This subclass is indented under subclass 136. Subject matter wherein the coating or impregnation is specifically stated to be an intumescent material  
  
(1) Note. An intumescent material comprises a material which swells, enlarges, or expands upon application of moisture or heat.
- 139 Antimony containing:**  
This subclass is indented under subclass 136. Subject matter wherein the coating or impregnation comprises antimony.
- 140 Boron containing:**  
This subclass is indented under subclass 136. Subject matter wherein the coating or impregnation comprises boron.
- 141 Phosphorus containing:**  
This subclass is indented under subclass 136. Subject matter wherein the coating or impregnation comprises phosphorus.
- 142 Phosphorus and nitrogen containing compound:**  
This subclass is indented under subclass 141. Subject matter wherein the coating or impregnation contains a compound which comprises phosphorus and nitrogen.
- 143 A phosphorus containing compound and a nitrogen containing compound:**  
This subclass is indented under subclass 141. Subject matter wherein the coating or impregnation contains a compound comprising phosphorus and a compound comprising nitrogen.
- 144 Phosphorus and halogen containing compound:**  
This subclass is indented under subclass 141. Subject matter wherein the coating or impregnation contains a compound comprising phosphorus and halogen.
- 145 A phosphorus containing compound and a halogen containing compound:**  
This subclass is indented under subclass 141. Subject matter wherein the coating or impregnation contains a compound comprising phosphorus and a compound comprising halogen.
- 146 Halogen containing:**  
This subclass is indented under subclass 136. Subject matter wherein the coating or impregnation comprises halogen.
- 147 Nitrogen containing:**  
This subclass is indented under subclass 136. Subject matter wherein the coating or impregnation comprises nitrogen.
- 148 Coating or impregnation provides wear or abrasion resistance:**  
This subclass is indented under subclass 59. Subject matter wherein the coating or impregnation is specifically stated to resist wear or abrasion.
- 149 Coating or impregnation intended to function as an adhesive to solid surfaces subsequently associated therewith:**  
This subclass is indented under subclass 59. Subject matter wherein the coating or impregnation functions as an adhesive, the adhesive being used to adhere at least one solid surface subsequently associated with the coated or impregnated fabric.
- 150 Heat-activatable adhesive:**  
This subclass is indented under subclass 149. Subject matter wherein the coating or impregnation is an adhesive which is heat activatable.

- 151 Pressure-sensitive adhesive:**  
This subclass is indented under subclass 149. Subject matter wherein the coating or impregnation is an adhesive which is pressure sensitive.
- 152 Coated or impregnated natural fiber fabric (e.g., cotton, wool, silk, linen, etc.):**  
This subclass is indented under subclass 59. Subject matter wherein the fabric comprises a naturally occurring fiber such as cotton wool, silk, linen, etc.
- 153 Coated or impregnated cellulosic fiber fabric:**  
This subclass is indented under subclass 152. Subject matter wherein the naturally occurring fiber comprises cellulosic fiber.
- 154 Coating or impregnation contains an acrylic polymer or copolymer (e.g., polyacrylonitrile, polyacrylic acid, etc.):**  
This subclass is indented under subclass 153. Subject matter wherein the coating or impregnation comprises an acrylic polymer or copolymer such as polyacrylonitrile, polyacrylic acid, etc.
- 155 Coating or impregnation contains a vinyl polymer or copolymer:**  
This subclass is indented under subclass 153. Subject matter wherein the coating or impregnation comprises a vinyl polymer or copolymer.
- 156 Coating or impregnation contains an epoxy polymer or copolymer or polyether:**  
This subclass is indented under subclass 153. Subject matter wherein the coating or impregnation comprises a polyether or an epoxy polymer or copolymer.
- 157 Polymeric coating or impregnation from a silane or siloxane not specified as lubricant or water repellent:**  
This subclass is indented under subclass 153. Subject matter wherein the coating or impregnation comprises a silane or siloxane polymer, the polymer not being a lubricant or water repellent.
- 158 Coating or impregnation contains polyimide or polyamide:**  
This subclass is indented under subclass 153. Subject matter wherein the coating or impregnation comprises polyimide or polyamide.
- 159 Coating or impregnation contains natural gum, rosin, natural oil, or wax:**  
This subclass is indented under subclass 153. Subject matter wherein the coating or impregnation comprises natural gum, rosin, natural oil, or wax.
- 160 Coating or impregnation contains aldehyde or ketone condensation product:**  
This subclass is indented under subclass 153. Subject matter wherein the coating or impregnation comprises a product resulting from the condensation of an aldehyde or a ketone.
- 161 Phenol-aldehyde condensate:**  
This subclass is indented under subclass 160. Subject matter wherein the condensation product comprises a phenol-aldehyde condensate.
- 162 Melamine-aldehyde condensate:**  
This subclass is indented under subclass 160. Subject matter wherein the condensation product comprises a melamine-aldehyde condensate.
- 163 Amide-aldehyde condensate (e.g., modified urea-aldehyde condensate, etc.):**  
This subclass is indented under subclass 160. Subject matter wherein the condensation product comprises an amide-aldehyde condensate such as modified urea-aldehyde condensate.
- 164 Coated or impregnated synthetic organic fiber fabric:**  
This subclass is indented under subclass 59. Subject matter wherein the fabric comprises synthetic organic fiber.
- 165 Coated or impregnated regenerated cellulose fiber comprises synthetic organic fiber fabric:**  
This subclass is indented under subclass 164. Subject matter wherein the synthetic organic fiber is a regenerated cellulose fiber.

- 166 Coated or impregnated polyvinyl alcohol fiber fabric:**  
This subclass is indented under subclass 164. Subject matter wherein the synthetic organic fiber is a polyvinyl alcohol fiber.
- 167 Coated or impregnated acrylic fiber fabric:**  
This subclass is indented under subclass 164. Subject matter wherein the synthetic organic fiber is an acrylic fiber.
- 168 Coated or impregnated polyamide fiber fabric:**  
This subclass is indented under subclass 164. Subject matter wherein the synthetic organic fiber is a polyamide fiber.
- 169 Aromatic polyamide fiber fabric:**  
This subclass is indented under subclass 168. Subject matter wherein the polyamide fiber is an aromatic polyamide fiber.
- 170 Coated or impregnated polyolefin fiber fabric:**  
This subclass is indented under subclass 164. Subject matter wherein the synthetic organic fiber is a polyolefin fiber.
- 171 Polypropylene fiber fabric:**  
This subclass is indented under subclass 170. Subject matter wherein the polyolefin fiber is a polypropylene fiber.
- 172 Coated or impregnated inorganic fiber fabric:**  
This subclass is indented under subclass 59. Subject matter wherein the fabric comprises an inorganic fiber.
- 173 Coating or impregnation contains vinyl polymer or copolymer:**  
This subclass is indented under subclass 172. Subject matter wherein the coating or impregnation comprises vinyl polymer or copolymer.
- 174 Vinyl acetate polymer or copolymer:**  
This subclass is indented under subclass 173. Subject matter wherein the vinyl polymer or copolymer comprises a vinyl acetate polymer or copolymer.
- 175 Coating or impregnation contains epoxy polymer or copolymer or polyether:**  
This subclass is indented under subclass 172. Subject matter wherein the coating or impregnation comprises a polyether or an epoxy polymer or copolymer.
- 176 Coating or impregnation contains aldehyde or ketone condensation product:**  
This subclass is indented under subclass 172. Subject matter wherein the coating or impregnation comprises a product resulting from the condensation of an aldehyde or a ketone.
- 177 Amide-aldehyde condensate:**  
This subclass is indented under subclass 176. Subject matter wherein the condensation product comprises an amide-aldehyde condensate.
- 178 Coated or impregnated ceramic fiber fabric:**  
This subclass is indented under subclass 172. Subject matter wherein the inorganic fiber is a ceramic fiber.
- 179 Coated or impregnated carbon or carbonaceous fiber fabric:**  
This subclass is indented under subclass 172. Subject matter wherein the inorganic fiber is a carbon (graphite) or carbonaceous fiber.
- 180 Coated or impregnated glass fiber fabric:**  
This subclass is indented under subclass 172. Subject matter wherein the inorganic fiber is a glass fiber.
- 181 WOVEN FABRIC (I.E., WOVEN STRAND OR STRIP MATERIAL):**  
This subclass is indented under the class definition. Subject matter wherein the fabric is a woven fabric composed of at least one set of strands or strips in a warp direction interengaged with at least one set of strands or strips in a fill or weft direction, the fill or weft direction being at an angle other than 0° relative to the warp direction.
- SEE OR SEARCH CLASS:**  
139, Textiles: Weaving, subclass 383 for woven fabrics made solely by a weaving process without any other fabric processing prior to or following weaving.

- 428, Stock Material or Miscellaneous Articles, subclasses 34.1+ for hollow or container type articles (e.g., tube, vase, etc.) containing at least one woven fabric: subclasses 105+ for woven fabrics wherein strands or strips thereof are disposed in angular relation to strands or strips in a second layer or component; subclass 114 for woven fabrics wherein strands or strips thereof are arranged in parallel relation to strands or strips in a second layer or component; subclasses 175+ for a product of uniform thickness but of nonplanar characteristics and comprising interengaged strands or strips; and subclass 196 for woven fabrics with a discontinuous coating, impregnation, or bond.
- 182 Woven fabric has an elastic quality:**  
This subclass is indented under subclass 181. Subject matter wherein the fabric has an ability to recover substantially its original shape and size immediately after removal of deformation or elongation causing stress.
- SEE OR SEARCH CLASS:  
139, Textiles: Weaving, subclasses 421 through 423 for elastic woven fabrics made solely by a weaving process without any other fabric processing prior to or following weaving.
- 183 Including a preformed layer other than the elastic woven fabric (e.g., fabric or film or foil or sheet layer, etc.):**  
This subclass is indented under subclass 182. Subject matter wherein the elastic fabric has a preformed layer associated therewith, the preformed layer having structural integrity prior to association with the elastic woven fabric and being in the form of a film, foil, sheet, or additional fabric layer.
- 184 Including elastic strand or strip:**  
This subclass is indented under subclass 182. Subject matter wherein a strand or strip or a filamentary component of a strand or strip of which the fabric is composed is characterized by elastic qualities (e.g., it is formed of or has a core of elastomeric polymeric material).
- SEE OR SEARCH THIS CLASS, SUBCLASS:  
190, and 191, for fabric composed of a non-elastomeric core-spun strand.
- SEE OR SEARCH CLASS:  
57, Textiles: Spinning, Twisting, and Twining, subclass 225 and 226 for elastomeric core-spun yarns, per se.
- 185 Including a strip or ribbon:**  
This subclass is indented under subclass 181. Subject matter wherein a strip or ribbon has been woven into the fabric.
- (1) Note. A strip or ribbon is an elongated element having a width which substantially exceeds its thickness.
- 186 Woven fabric comprises strips or ribbons only:**  
This subclass is indented under subclass 185. Subject matter wherein the fabric is woven solely from ribbons or strips (i.e., does not contain woven strands or yarns).
- 187 Including strand precoated with other than free metal or alloy:**  
This subclass is indented under subclass 181. Subject matter comprising a strand which has been coated with a non-metallic material prior to incorporation into the woven fabric.
- 188 Multiple coatings:**  
This subclass is indented under subclass 187. Subject matter wherein the strand had been subjected to more than one coating prior to weaving.
- 189 Including strand which is of specific structural definition:**  
This subclass is indented under subclass 181. Subject matter wherein the fabric comprises (a) strands having a specific structural characteristics such as being composed of individual filaments having different chemical composition twisted together or being core-spun about a non-clastic core or (b) the strands, per se, or individual filamentary materials comprising the strands are characterized by a specific structural feature such as nonlinearity, a particular cross section, or a particular absolute size



- of any feature, component, or dimension (e.g., length, width, or thickness, etc.).
- 190 Strand material is core-spun (not sheath-core bicomponent strand):**  
This subclass is indented under subclass 189. Subject matter wherein the strand is a yarn made by twisting fibers around a filament or yarn core to form a fibrous sheath about the core.
- SEE OR SEARCH CLASS:  
57, Textiles: Spinning, Twisting, and Twining, subclasses 224 through 230 for core-spun yarns, per se.
- 191 Core is synthetic polymeric material:**  
This subclass is indented under subclass 190. Subject matter wherein the material of the core comprises a synthetic polymeric material.
- 192 Cross-sectional configuration of strand material is specified:**  
This subclass is indented under subclass 189. Subject matter wherein the cross-sectional shape of the strand material or a filamentary constituent thereof is specified.
- SEE OR SEARCH CLASS:  
428, Stock Material or Miscellaneous Articles, subclasses 397 through 402 for strand material having, per se, particular cross sections or physical dimensions.
- 193 Cross-sectional configuration varies longitudinally along the strand:**  
This subclass is indented under subclass 192. Subject matter wherein the cross section of the strand material or filamentary constituent thereof changes along the length thereof either in dimension or shape.
- SEE OR SEARCH CLASS:  
428, Stock Material or Miscellaneous Articles, subclass 399 for longitudinally varying strands, per se.
- 194 Hollow strand material:**  
This subclass is indented under subclass 192. Subject matter wherein the strand material or a filamentary constituent thereof is tubular or hollow or characterized by one or more voids either coextensive or non-coextensive along the length thereof.
- SEE OR SEARCH CLASS:  
428, Stock Material or Miscellaneous Articles, subclass 398 for hollow strand material, per se.
- 195 Cross-sectional configuration of the strand material is other than circular:**  
This subclass is indented under subclass 192. Subject matter wherein the cross-sectional configuration of the strand material is specified, the cross-sectional configuration not being circular.
- 196 Cross-sectional configuration is multi-lobal:**  
This subclass is indented under subclass 195. Subject matter wherein the cross-sectional configuration of the strand material is characterized by two or more lobes (i.e., rounded projections or divisions).
- 197 Strand material formed of individual filaments having different chemical compositions:**  
This subclass is indented under subclass 189. Subject matter wherein the strand material is composed of at least two chemically different individual filaments.
- 198 Including inorganic filament:**  
This subclass is indented under subclass 197. Subject matter wherein at least one of the two chemically different individual filaments comprises inorganic material (e.g., glass, ceramic, mineral, carbon, or metal filaments, etc.).
- 199 Strand material is composed of two or more polymeric materials in physically distinct relationship (e.g., sheath-core, side-by-side, islands-in-sea, fibrils-in-matrix, etc.) or composed of physical blend of chemically different polymeric materials or a physical blend of a polymeric material and a filler material:**  
This subclass is indented under subclass 181. Subject matter wherein the strand material, per se, or a filamentary constituent thereof is composed of (a) two or more synthetic polymeric materials which are specified as being in sheath-core, side-by-side, islands-in-sea, fibrils-in-matrix, or any other physically distinct relationship across a cross section thereof,

(b) a physical blend of two or more polymeric materials specifically disclosed and/or claimed as having distinctly different chemical characteristics, or (c) a blend or an admixture of a polymeric material and a filler material.

SEE OR SEARCH CLASS:

428, Stock Material or Miscellaneous Articles, subclass 372 for strands and filaments, per se, in combination with structurally defined particulate matter; and subclasses 373 and 374 for multi-component strands and filaments, per se.

**200 Sheath-core multicomponent strand material:**

This subclass is indented under subclass 199. Subject matter wherein the strand or a filamentary component thereof contains two or more synthetic polymeric materials which are in sheath-core relationship across a cross section thereof.

SEE OR SEARCH CLASS:

428, Stock Material or Miscellaneous Articles, subclass 333 for a sheath-core filament or strand, per se.

**201 Islands-in-sea multicomponent strand material:**

This subclass is indented under subclass 199. Subject matter wherein the strand or a filamentary component thereof is characterized by two or more distinct polymeric materials in islands-in-sea distinct physical relationship across a cross section thereof.

**202 Strand material is a blend of polymeric material and a filler material:**

This subclass is indented under subclass 199. Subject matter wherein the strand or a filamentary component thereof comprises a blend or admixture of a synthetic polymeric material and one or more specified filler materials.

SEE OR SEARCH CLASS:

428, Stock Material or Miscellaneous Articles, subclass 372 for a strand or filament, per se, in combination with particulate matter.

**203 Woven fabric is characterized by a particular or differential weave other than fabric in**

**which the strand denier or warp/weft pick count is specified:**

This subclass is indented under subclass 181. Subject matter wherein a characteristic of the fabric weave is specified other than the strand denier or the pick yarn (i.e., filling yarn) or warp yarn count (i.e., the number of yarns per specified unit of measure).

SEE OR SEARCH CLASS:

139, Textiles: Weaving, subclasses 383+ through 420+ for woven fabrics made solely by a weaving process without any other fabric processing prior to or following weaving.

**204 Triaxially woven fabric:**

This subclass is indented under subclass 203. Subject matter wherein the fabric is specified as having been woven with strands disposed in at least three directions within an x-y plane

**205 Three dimensional weave (e.g., x-y-z planes, multiplanar warps and/or wefts, etc.):**

This subclass is indented under subclass 203. Subject matter wherein the fabric is specified as composed of multiple stacked warps and/or multiple stacked wefts held in place, respectively, by weft or warp strands.

**206 Multi-planar warp layers:**

This subclass is indented under subclass 205. Subject matter wherein the fabric is characterized by multiple warp layers in more than one plane.

**207 Multi-planar weft layers:**

This subclass is indented under subclass 205. Subject matter wherein the fabric is characterized by multiple weft layers in more than one plane.

**208 Warp differs from weft:**

This subclass is indented under subclass 203. Subject matter wherein the warp yarns are stated to differ from the weft yarns in some specifically detailed manner other than a difference in denier or the number of yarns per unit of length or width.

- 209 Materials differ:**  
This subclass is indented under subclass 208. Subject matter wherein the strand material composing the warps and wefts differs chemically.
- 210 Including inorganic strand material:**  
This subclass is indented under subclass 209. Subject matter wherein the strands of the warp and/or the weft are composed of inorganic material (e.g., carbon, ceramic, mineral, glass, etc.).
- 211 Including natural strand material (e.g., cotton, wool, etc.):**  
This subclass is indented under subclass 210. Subject matter wherein the strands of the warp and/or the weft are composed of inorganic and natural materials (e.g., cotton, wool, etc.).
- 212 Including synthetic polymeric strand material:**  
This subclass is indented under subclass 210. Subject matter wherein the strands of the warp and/or the weft are composed of inorganic and synthetic polymeric material (e.g., viscose rayon, polyamide, polyester, polyimide, etc.).
- 213 Including synthetic polymeric strand material:**  
This subclass is indented under subclass 209. Subject matter wherein the strands of the warp and/or the weft are composed of synthetic polymeric material (e.g., viscose rayon, polyamide, polyester, polyimide, etc.).
- 214 Including natural strand material:**  
This subclass is indented under subclass 213. Subject matter wherein the strands of the warp and/or the weft are composed of synthetic polymeric and natural material.
- 215 Including polyamide strand material:**  
This subclass is indented under subclass 213. Subject matter wherein the synthetic polymeric material is a polyamide (e.g., nylon, etc.).
- 216 Including polyester strand material:**  
This subclass is indented under subclass 213. Subject matter wherein the synthetic polymeric material is a polyester (e.g., Dacron®, etc.).
- 217 Warp and weft are identical and contain at least two chemically different strand materials:**  
This subclass is indented under subclass 203. Subject matter wherein at least two chemically different strand materials are disposed in the warp and the same combination of chemically different strand materials are disposed in the weft.
- 218 Coated, impregnated, or autogenous bonded:**  
This subclass is indented under subclass 203. Subject matter wherein the fabric has been coated or impregnated or autogenously bonded (i.e., wherein strands or filamentary components thereof have been caused to adhere to one another through activation of an inherent cohesive or adhesive property by heat and/or pressure or application of solvent).
- 219 Woven fabric contains inorganic strand material:**  
This subclass is indented under subclass 218. Subject matter wherein the strands are composed of inorganic material (e.g., carbon, ceramic, mineral, glass, etc.).
- 220 Woven fabric contains synthetic polymeric strand material:**  
This subclass is indented under subclass 218. Subject matter wherein the strands are composed of synthetic polymeric material (e.g., viscose rayon, polyamide, polyimide, polyester, etc.).
- 221 Including a foamed layer or component:**  
This subclass is indented under subclass 181. Subject matter including a component or layer specified as being a foam (i.e., a material characterized by a multitude of open or closed cells).
- 222 Including a free metal or alloy constituent:**  
This subclass is indented under subclass 221. Subject matter having a constituent which is a metal in elemental or alloy form (i.e., other than in the form of a chelate, salt, or compound resulting from the chemical reaction of a metal).
- (1) Note. Classified here is, for example, a fabric-foam combination wherein (a) the

fabric or the foam has been provided with a metal coating, (b) the fabric is composed of a strand comprising elemental metal, or (c) a metal layer having structural integrity has been adhesively associated with the foam and/or fabric layer.

**223 Plural foamed layers:**

This subclass is indented under subclass 221. Subject matter characterized by having two or more distinct foam layers.

**224 Plural fabric layers:**

This subclass is indented under subclass 221. Subject matter characterized by having two or more distinct fabric layers.

**225 Including a nonwoven fabric layer:**

This subclass is indented under subclass 224. Subject matter wherein at least one fabric layer is nonwoven.

**226 Woven fabric is coated, impregnated, or autogenously bonded:**

This subclass is indented under subclass 221. Subject matter wherein the woven fabric has been coated or impregnated or autogenously bonded (i.e., wherein the strands or filamentary components thereof have been caused to adhere to one another through activation of an inherent cohesive or adhesive property by heat and/or pressure or application of solvent).

**227 Coating or impregnation includes particulate material other than fiber:**

This subclass is indented under subclass 226. Subject matter wherein the coating or impregnation contains particulate material which is not fiber.

**228 Including a free metal or alloy constituent:**

This subclass is indented under subclass 181. Subject matter having a constituent which is a metal in elemental or alloy form (i.e., in other than the form of a chelate, salt, or compound resulting from the chemical reaction of a metal).

**229 Metal or metal-coated strand:**

This subclass is indented under subclass 228. Subject matter wherein the metal constituent is in the form of a strand or a coating applied to a

strand or strands prior to weaving the strand or strands into a fabric.

**SEE OR SEARCH CLASS:**

139, Textiles: Weaving, subclass 425 for metal-containing fabrics formed solely from a weaving process and no other process prior to or following weaving.

**230 Vapor or sputter deposited metal layer:**

This subclass is indented under subclass 228. Subject matter wherein the metal constituent is in the form of a metal coating provided by a vapor deposition or sputter deposition process.

**231 Chemically deposited metal layer (e.g., chemical precipitation or electrochemical deposition or plating, etc.):**

This subclass is indented under subclass 228. Subject matter wherein the metal constituent is in the form of a distinct layer provided by a chemical or electrochemical process such as chemical precipitation, electrochemical deposition, or plating.

**232 Preformed metallic film or foil or sheet (film or foil or sheet had structural integrity prior to association with the woven fabric):**

This subclass is indented under subclass 228. Subject matter wherein the metal constituent comprises at least one preformed film, foil, or sheet layer having had structural integrity prior to its association with the fabric.

**233 Plural metallic films or foils or sheets:**

This subclass is indented under subclass 232. Subject matter characterized by two or more such preformed layers.

**234 Plural fabric layers:**

This subclass is indented under subclass 232. Subject matter characterized by having two or more fabric (woven, nonwoven, knit) layers.

**235 Including a nonwoven fabric layer:**

This subclass is indented under subclass 234. Subject matter wherein at least one fabric layer is nonwoven.

**236 Including a preformed synthetic polymeric film or sheet (i.e., film or sheet having struc-**

- tural integrity prior to association with the woven fabric):**  
This subclass is indented under subclass 232. Subject matter which contains at least one additional preformed synthetic polymeric film or sheet having had structural integrity prior to association with the fabric and which maintains its structural integrity after association with the fabric.
- 237 Including particulate material other than fiber:**  
This subclass is indented under subclass 232. Subject matter which contains particulate material which is not fiber.
- 238 Plural fabric layers:**  
This subclass is indented under subclass 228. Subject matter characterized by having two or more fabric (woven, nonwoven, knit) layers.
- 239 Woven fabric including an additional woven fabric layer:**  
This subclass is indented under subclass 181. Subject matter wherein the woven fabric is in combined association with an additional woven fabric.
- 240 Mechanically needled or hydroentangled:**  
This subclass is indented under subclass 239. Subject matter wherein the woven fabric layers have been adhered to one another by a mechanical needling or hydroentanglement process.
- (1) Note. In a mechanical needling process, barbed needles are forced through fiber layers and in the process displace enough fibers to cause interlayer penetration of fibers with resultant fiber layer bonding.
- (2) Note. In a hydroentanglement process, streams of water are forced through fiber layers and in the process displace enough fibers to cause interlayer penetration of fibers with resultant fiber layer bonding.
- SEE OR SEARCH CLASS:**  
156, Adhesive Bonding and Miscellaneous Chemical Manufacture, subclass 148 for a process of associating one woven web with another using a process of needling.
- 241 Four or more layers:**  
This subclass is indented under subclass 240. Subject matter wherein four or more layers have been subjected to a needling or hydroentanglement operation.
- 242 Coated, impregnated, or autogenously bonded:**  
This subclass is indented under subclass 240. Subject matter wherein at least one woven fabric has been coated or impregnated or subjected to autogenous bonding (i.e., wherein the strand or filamentary components of the fabric have been caused to adhere to one another through activation of an inherent cohesive or adhesive property by heat and/or pressure or application of solvent).
- 243 Woven fabric layers comprise chemically different strand material:**  
This subclass is indented under subclass 239. Subject matter wherein the woven fabrics differ chemically one from another due to the composition of strand materials incorporated therein.
- 244 Three or more fabric layers:**  
This subclass is indented under subclass 243. Subject matter composed of three or more fabric (woven, nonwoven, knitted) layers.
- 245 One of which is a nonwoven fabric layer:**  
This subclass is indented under subclass 244. Subject matter wherein at least one fabric layer is nonwoven.
- (1) Note. A nonwoven fabric is an assembly having structural integrity of continuous or discontinuous fibers held together in random or ordered (e.g., parallel, etc.) array by (a) mechanical interlock (e.g., as a consequence of needling or hydroentangling, etc.), (b) in the case of thermoplastic fibers, heat-induced bonding (i.e., fusing), or (c) an impregnation or coating of a bonding agent. Paper is not to be considered as nonwoven fabric for classification here.

- 246 Three or more fabric layers:**  
This subclass is indented under subclass 239. Subject matter wherein the woven fabric is combined with two or more additional fabric (woven, nonwoven, knit) layers.
- 247 One of which is a nonwoven fabric layer:**  
This subclass is indented under subclass 246. Subject matter wherein at least one of the additional fabric layers is nonwoven.
- 248 Woven fabric layers impregnated with a blend of thermosetting and thermoplastic resins:**  
This subclass is indented under subclass 246. Subject matter wherein the woven fabric layers are impregnated with a blend of a thermosetting resin (i.e., a resin which hardens when subjected to heating conditions) and a thermoplastic resin (i.e., a resin rendered soft and moldable under heating conditions).
- 249 Woven fabric layers impregnated with an organosilicon resin:**  
This subclass is indented under subclass 246. Subject matter wherein the layers have been impregnated with a polymeric organic silicon compound or an organosilicon oxide polymer.
- (1) Note. Organosilicon resins usually serve as water and heat-resistant lubricants and finishers and can impart stain resistance, water repellency, and an enhanced crease resistance and feeling of softness to fabrics treated therewith.
- 250 Woven fabric layers impregnated with a natural or synthetic rubber:**  
This subclass is indented under subclass 246. Subject matter wherein the layers have been impregnated with a natural or synthetic rubber.
- 251 Woven fabric layers impregnated with a thermosetting resin:**  
This subclass is indented under subclass 246. Subject matter wherein the fabric layers have been impregnated with a resin which hardens when subjected to heating conditions.
- 252 Phenolic resin:**  
This subclass is indented under subclass 251. Subject matter wherein the thermosetting resin is produced by condensing an aldehyde or ketone with a phenol or phenolate.
- 253 Epoxy resin:**  
This subclass is indented under subclass 251. Subject matter wherein the thermosetting resin is produced by reacting an epoxide (e.g., epichlorohydrin, etc.) and a polyol (e.g., bisphenol, etc.) or alcoholate thereof.
- 254 Woven fabric layers impregnated with a thermoplastic resin (e.g., vinyl polymer, etc.):**  
This subclass is indented under subclass 246. Subject matter wherein the woven fabric layers have been impregnated with a resin which is rendered soft and moldable under heating conditions such as vinyl polymer.
- 255 Three or more distinct layers:**  
This subclass is indented under subclass 239. Subject matter wherein the woven fabric is combined with two or more additional distinct layers.
- 256 At least one layer is derived from water-settable material (e.g., cement, gypsum, etc.):**  
This subclass is indented under subclass 255. Subject matter wherein at least one layer contains a water-settable material (e.g., cement, gypsum, etc.) which forms a distinct layer.
- 257 At least one layer contains wood or cork:**  
This subclass is indented under subclass 255. Subject matter wherein at least one layer comprises a material derived from the structural element of a tree or shrub or the bark of a tree.
- 258 At least one layer contains bituminous material (e.g., tar pitch, asphalt, etc.):**  
This subclass is indented under subclass 255. Subject matter wherein at least one layer is disclosed as being pitch, asphalt, tar, bitumen, or the residue from the distillation of mineral oil and/or coal.
- 259 At least one layer comprises paper:**  
This subclass is indented under subclass 255. Subject matter wherein at least one layer comprises a sheet or web having structural integrity

- formed by the deposition of animal, vegetable, mineral, or synthetic fibers or mixtures thereof from a fluid suspension or dispersion which may or may not contain additional materials.
- 260 At least one layer contains natural or synthetic rubber:**  
This subclass is indented under subclass 255. Subject matter wherein at least one layer comprises a natural or synthetic rubber.
- 261 At least one layer is a preformed synthetic polymeric film or sheet:**  
This subclass is indented under subclass 255. Subject matter wherein at least one of the additional layers comprises a preformed synthetic polymer which is in the form of a film, foil, or sheet having had structural integrity prior to its association with the fabric.
- 262 At least one layer comprises ceramic or glass material in other than particulate form:**  
This subclass is indented under subclass 255. Subject matter wherein at least one layer comprises compound in non-particulate form composed of one or more fired non-metallic inorganic compounds or one or more fused metallic silicates.
- 263 Composite consisting of at least two woven fabrics bonded by an interposed adhesive layer (but not two woven fabrics bonded together by an impregnation which penetrates through the thickness of at least one of the woven fabric layers):**  
This subclass is indented under subclass 255. Subject matter characterized by the presence of at least two juxtaposed woven fabric layers with a distinct adhesive layer interposed therebetween.
- (1) Note. The adhesive layer is not provided by an impregnation penetrating through the thickness of at least one of the woven fabric layers.
- 264 Fabric layer contains natural strand material:**  
This subclass is indented under subclass 263. Subject matter wherein at least one fabric layer contains animal (e.g., wool, silk, etc.), vegetable (e.g., cotton, flax, etc.), or mineral (e.g., asbestos, etc.) naturally occurring filamentary material.
- 265 Fabric layer contains carbon or carbonaceous strand material:**  
This subclass is indented under subclass 263. Subject matter wherein at least one fabric layer contains carbon (graphite) strand material or a high tensile strength, stiff filamentary material produced by heating the filamentary material under conditions tending to remove all elements but carbon.
- 266 Fabric layer contains glass strand material:**  
This subclass is indented under subclass 263. Subject matter wherein at least one fabric layer is composed of strand material comprising filamentary material produced by spinning molten glass.
- 267 Including particulate material other than fiber:**  
This subclass is indented under subclass 255. Subject matter wherein at least one of the layers contains particulate material which is not fiber.
- 268 Woven fabric including a nonwoven fabric other than paper:**  
This subclass is indented under subclass 181. Subject matter wherein the woven fabric is in association with a nonwoven fabric, which is not paper.
- 269 Nonwoven fabric layer comprises parallel arrays of strand material:**  
This subclass is indented under subclass 268. Subject matter wherein the nonwoven fabric comprises strand material which has been oriented in a particular direction, the strand material components being parallel to one another.
- 270 Needled:**  
This subclass is indented under subclass 268. Subject matter wherein the fabric layers have been adhered to one another by a mechanical needling.
- (1) Note. In a mechanical needling process, barbed needles are forced through fibrous layers and in the process displace enough fibers to cause interlayer penetration of fibers and fiber layer bonding as a consequence of interlayer fiber friction.

**271 Including an additional nonwoven fabric:**

This subclass is indented under subclass 270. Subject matter characterized by the presence of two or more nonwoven fabrics which are not paper.

**272 Additional nonwoven fabric comprises chemically different strand material than the first nonwoven fabric:**

This subclass is indented under subclass 271. Subject matter wherein the chemical characteristics of the strand material comprising two different nonwoven fabrics are distinctly different.

**273 Including inorganic strand material:**

This subclass is indented under subclass 271. Subject matter wherein at least one of the nonwoven fabrics is composed of strand material which is inorganic (e.g., glass, ceramic, carbon, etc.).

**274 Nonwoven fabric layer comprises at least two chemically different fibers:**

This subclass is indented under subclass 270. Subject matter wherein the nonwoven fabric layer contains two or more fibrous materials having distinctly different chemical characteristics.

**275 Coated, impregnated, or autogenously bonded:**

This subclass is indented under subclass 270. Subject matter wherein at least one layer has been coated or impregnated or subjected to autogenous bonding (i.e., wherein strand or filamentary components have been caused to adhere to one another through activation of an inherent cohesive or adhesive property by heat and/or pressure or application of solvent).

**276 Hydroentangled:**

This subclass is indented under subclass 268. Subject matter wherein the fabric layers have been adhered to one another by hydroentangling.

- (1) Note. In a hydroentangling process, liquid streams impinge against fibrous layers and penetrate therein and in the process displace enough fibers to cause interlayer penetration of fibers and fiber

layer bonding as a consequence of inter-layer fiber friction.

**277 Coated, impregnated, or autogenously bonded:**

This subclass is indented under subclass 268. Subject matter wherein at least one layer has been coated or impregnated or subjected to autogenous bonding (i.e., wherein strand or filamentary components have been caused to adhere to one another through activation of an inherent cohesive or adhesive property by heat and/or pressure or application of solvent).

**278 Plural nonwoven fabric layers:**

This subclass is indented under subclass 277. Subject matter wherein at least two nonwoven fabric layers which are not paper are associated with a woven fabric layer.

**279 Coating or impregnation is derived from a water-settable material (e.g., cement, gypsum, etc.):**

This subclass is indented under subclass 277. Subject matter wherein the coating or impregnation is a water-settable material (e.g., cement, gypsum, etc.) which forms a distinct layer.

**280 Coating or impregnation contains natural or synthetic rubber:**

This subclass is indented under subclass 277. Subject matter wherein the coating or impregnation includes natural or synthetic rubber.

**281 Coating or impregnation contains synthetic polymeric material:**

This subclass is indented under subclass 277. Subject matter wherein at least one fabric layer has been coated or impregnated with a polymeric material, the polymeric material being synthetic.

**282 Coating or impregnation contains bituminous material:**

This subclass is indented under subclass 277. Subject matter wherein at least one layer is disclosed as being coated or impregnated with a pitch, asphalt, tar, bitumen, or the residue from the distillation of mineral oil and/or coal.



- 283 Four or more layers:**  
This subclass is indented under subclass 277. Subject matter wherein at least four distinct layers are associated together including a woven fabric layer and at least one nonwoven fabric layer, the coating or impregnation may constitute at least one layer.
- 284 Including particulate material other than fiber:**  
This subclass is indented under subclass 283. Subject matter wherein at least one of the four layers contains particulate material which is not fiber.
- 285 Including particulate material other than fiber:**  
This subclass is indented under subclass 277. Subject matter wherein a woven fabric layer, a nonwoven fabric layer, and a coating or impregnation layer are associated together and at least one of the above mentioned layers contains particulate material which is not fiber.
- 286 Woven fabric with a preformed polymeric film or sheet:**  
This subclass is indented under subclass 181. Subject matter which is associated with at least one additional preformed layer having had structural integrity prior to association with the fabric and which maintains its structural integrity after association with the fabric, the preformed layer being formed from a synthetic polymeric material which is in the form of a film or sheet.
- 287 Ester condensation polymer sheet or film (e.g., polyethylene terephthalate, etc.):**  
This subclass is indented under subclass 286. Subject matter wherein the preformed polymeric film or sheet is an ester condensation product such as polyethylene terephthalate, etc.
- 288 Vinyl polymer or copolymer sheet or film (e.g., polyvinyl chloride, polyvinylidene chloride, polyvinyl acetate, etc.):**  
This subclass is indented under subclass 286. Subject matter wherein the preformed polymeric film or sheet is a vinyl polymer or copolymer such as polyvinyl chloride, polyvinylidene chloride, polyvinyl acetate, etc.
- 289 Fluorinated olefin polymer or copolymer sheet or film (e.g., Teflon&4121;):**  
This subclass is indented under subclass 286. Subject matter wherein the preformed polymeric film or sheet is a fluorinated olefin polymer or copolymer such as Teflon&4121;, etc.
- 290 Olefin polymer or copolymer sheet or film (e.g., polypropylene, polyethylene, ethylene-butylene copolymer, etc.):**  
This subclass is indented under subclass 286. Subject matter wherein the preformed polymeric film or sheet is an olefin polymer or copolymer such as polypropylene, polyethylene, ethylene-butylene copolymer, etc.
- 291 Amide condensation polymer sheet or film (e.g., nylon 6, etc.):**  
This subclass is indented under subclass 286. Subject matter wherein the preformed polymeric film or sheet is an amide condensation polymer such as nylon 6, etc.
- 292 Polyimide sheet or film:**  
This subclass is indented under subclass 286. Subject matter wherein the preformed polymeric film or sheet is a polyimide.
- 293 Natural or synthetic rubber sheet or film:**  
This subclass is indented under subclass 286. Subject matter wherein the preformed polymeric film or sheet is natural or synthetic rubber.
- 294 Including particulate material other than fiber:**  
This subclass is indented under subclass 286. Subject matter wherein the preformed polymeric film or sheet or the woven fabric associated therewith contains particulate material which is not fiber.
- 295 Including a paper or wood pulp layer:**  
This subclass is indented under subclass 181. Subject matter wherein the woven fabric is associated with an additional layer comprising a sheet or web having structural integrity formed by the deposition of animal, vegetable, mineral, or synthetic fibers or mixtures thereof from a fluid suspension or dispersion which may or may not contain additional materials.

- 296 Mica paper layer:**  
This subclass is indented under subclass 295. Subject matter wherein the paper is formed from mica.
- 297 Plural paper or wood pulp layers:**  
This subclass is indented under subclass 295. Subject matter wherein the woven fabric is associated with two or more additional layers comprising a sheet or web having structural integrity formed by the deposition of animal, vegetable, mineral, or synthetic fibers or mixtures thereof from a fluid suspension or dispersion which may or may not contain additional materials.
- 298 Including a bituminous layer:**  
This subclass is indented under subclass 295. Subject matter wherein at least one layer is disclosed as being coated or impregnated with a pitch, asphalt, tar, bitumen, or the residue from the distillation of mineral oil and/or coal.
- 299 Including an outermost adhesive layer:**  
This subclass is indented under subclass 295. Subject matter wherein an outer surface of the woven fabric and/or the paper or wood pulp layer has associated therewith an adhesive layer.
- 300 Including a natural or synthetic rubber layer:**  
This subclass is indented under subclass 295. Subject matter wherein the woven fabric and/or the paper or wood pulp layer has associated therewith a natural or synthetic rubber layer in the form of a coating, impregnation, or separate and distinct layer.
- 301 Including strand which is stated to have specific attributes (e.g., heat or fire resistance, chemical or solvent resistance, high absorption for aqueous composition, water solubility, heat shrinkability, etc.):**  
This subclass is indented under subclass 181. Subject matter wherein the woven fabric contains a strand which has attributes such as heat or fire resistance, chemical or solvent resistance, high absorption for aqueous compositions, water solubility, heat shrinkability, etc., the strand attributes being specifically stated.
- (1) Note. Inherent properties of a given strand or fiber material should not be considered for classification purposes in this subclass, only specifically stated properties of the strand or fiber material.
- 302 Strand is other than glass and is heat or fire resistant:**  
This subclass is indented under subclass 301. Subject matter wherein the strand which is not glass is heat or fire resistant.
- 303 Strand is heat shrinkable:**  
This subclass is indented under subclass 301. Subject matter wherein the strand shrinks when exposed to heat.
- 304 KNIT FABRIC (I.E., KNIT STRAND OR STRIP MATERIAL):**  
This subclass is indented under the class definition. Subject matter wherein the fabric is a knit fabric composed of strands or strips interengaged with one another to form interlocked loops of strand material, the interlocked loops forming wales and courses in the knit fabric.
- SEE OR SEARCH CLASS:
- 66, Textiles: Knitting, for knitted fabrics made solely by a knitting process without any other fabric processing prior to or following knitting.
- 428, Stock Material or Miscellaneous Articles, subclasses 34.1+ for hollow or container type articles (e.g., tube, vase, etc.) containing at least one knit fabric; subclasses 105+ for knit fabrics wherein strands or strips thereof are disposed in angular relation to strands or strips in a second layer or component; subclass 114 for knit fabrics wherein strands or strips thereof are arranged in parallel relation to strands or strips in a second layer or component; subclasses 175+ for a product of uniform thickness but of nonplanar characteristics and comprising interengaged strands or strips; and subclass 196 for knit fabrics with a discontinuous coating, impregnation, or bond.

**305 Including parallel strips:**

This subclass is indented under subclass 304. Subject matter wherein parallel strips are incorporated into the knitted fabric.

- (1) Note. A strip is an elongated element having a width which substantially exceeds its thickness.

**306 Including an elastic strand:**

This subclass is indented under subclass 304. Subject matter wherein a strand or strip or a filamentary component of a strand or strip of which the fabric is composed is characterized by elastic qualities (e.g., it is formed of or has a core of elastomeric polymeric material, etc.).

SEE OR SEARCH THIS CLASS, SUBCLASS:

308, for fabrics composed of a non-elastomeric core-spun strand.

SEE OR SEARCH CLASS:

57, Textiles: Spinning, Twisting, and Twining, subclass 225 and 226 for elastomeric core-spun yarns, per se.

**307 Including strand precoated with other than free metal or alloy:**

This subclass is indented under subclass 304. Subject matter comprising a strand which has been coated with a non-metallic material prior to incorporation into the knit fabric.

**308 Including strand which is of specific structural definition:**

This subclass is indented under subclass 304. Subject matter wherein the fabric comprises (a) strands having a specified structural characteristic such as being composed of individual filaments having different chemical composition twisted together or being core-spun about elastic core or (b) the strands, per se, or individual filamentary materials comprising the strands are characterized by a specific structural feature such as nonlinearity, a particular cross section or a particular absolute size of any feature, component, or dimension (e.g., length, width, or thickness).

SEE OR SEARCH CLASS:

57, Textiles: Spinning, Twisting, and Twining, subclasses 224 through 230 for core-spun yarns, per se.

**309 Cross-sectional configuration of strand material is specified:**

This subclass is indented under subclass 308. Subject matter wherein the cross-sectional shape of the strand material or a filamentary constituent thereof is specified or of continuously uniform diameter or of a particular nature or specified shape or dimension.

SEE OR SEARCH CLASS:

428, Stock Material or Miscellaneous Articles, subclasses 397 through 402 for strand materials having, per se, particular cross sections or physical dimensions.

**310 Strand material formed of individual filaments having different chemical compositions:**

This subclass is indented under subclass 308. Subject matter wherein the strand material is composed of at least two chemically different individual filaments.

**311 Strand is a monofilament composed of two or more polymeric materials in physically distinct relationship (e.g., sheath-core, side-by-side, islands-in-sea, fibrils-in-matrix, etc.) or composed of physical blend of chemically different polymeric materials or a physical blend of a polymeric material and a filler material:**

This subclass is indented under subclass 304. Subject matter wherein the strand material, per se, or a filamentary constituent thereof is composed of (a) two or more synthetic polymeric materials which are specified as being in sheath-core, side-by-side, islands-in-sea, fibrils-in-matrix, or any other physically distinct relationship across a cross section thereof, (b) a physical blend of two or more polymeric materials specifically disclosed and/or claimed as having distinctly different chemical or physical characteristics, or (c) a blend or an admixture of a polymeric material and a filler material.

## SEE OR SEARCH CLASS:

428, Stock Material or Miscellaneous Articles, subclass 372 for strands and filaments, per se, in combination with structurally defined particulate matter; and subclasses 373 and 374 for multi-component strands and filaments, per se.

**312 Knit fabric is characterized by a particular or differential knit pattern other than open knit fabric or a fabric in which the strand denier is specified:**

This subclass is indented under subclass 304. Subject matter wherein a characteristic of the fabric knit pattern is specified other than the strand denier or an open knit fabric.

## SEE OR SEARCH THIS CLASS, SUBCLASS:

1, for an open knit fabric.

## SEE OR SEARCH CLASS:

66, Textiles: Knitting, for knitted fabrics made solely by a knitting process without any other fabric processing prior to or following knitting.

**313 Including additional strand inserted within knit fabric:**

This subclass is indented under subclass 312. Subject matter wherein the knit pattern includes additional strand within the knit fabric, the additional strand being inserted in the knit fabric to form a warp-inserted and/or weft-inserted knit fabric.

**314 Warp knit insert strand:**

This subclass is indented under subclass 313. Subject matter wherein the additional strand is inserted within the knit fabric to form a warp-inserted knit fabric.

**315 Including a foamed layer or component:**

This subclass is indented under subclass 304. Subject matter including a component or layer specified as being a foam (i.e., a material characterized by a multitude of open or closed cells).

**316 Including a free metal or alloy constituent:**

This subclass is indented under subclass 304. Subject matter having a constituent which is a metal in elemental or alloy form (i.e., other than in the form of a chelate, salt, or compound resulting from the chemical reaction of a metal).

(1) Note. Classified here is, for example, a knit fabric wherein (a) the fabric has been provided with a metal coating, (b) the fabric is composed of a strand comprising elemental metal, and (c) a metal layer having structural integrity has been adhesively associated with the fabric layer.

## SEE OR SEARCH CLASS:

66, Textiles: Knitting, subclass 202 for metal-containing fabrics formed solely from a knitting process and no other process prior to or following knitting.

**317 Chemically deposited metal layer (e.g., chemical precipitation or electrochemical deposition or plating, etc.):**

This subclass is indented under subclass 316. Subject matter wherein the metal constituent is in the form of a distinct layer provided by a chemical or electrochemical process such as chemical precipitation, electrochemical deposition, or plating.

**318 Including an additional knit fabric layer:**

This subclass is indented under subclass 304. Subject matter wherein the knit fabric is in association with an additional knit fabric layer.

**319 Including a nonwoven fabric layer other than paper:**

This subclass is indented under subclass 304. Subject matter wherein the knit fabric is in association with a nonwoven fabric which is not paper.

**320 FELT FABRIC:**

This subclass is indented under the class definition. Subject matter wherein the fabric comprises fibers having barbs or some other laterally extending fiber portion, the fibers being worked together by pressure, heat, or some other means without weaving or knitting to

form a sheet having structural integrity due to the interlocking of the barb-like extensions on the fibers.

**SEE OR SEARCH CLASS:**

428, Stock Material or Miscellaneous Articles, subclasses 141+ for a textured surface, such as roofing elements, comprising asphalt impregnated felt fabric substrates with particulate matter thereon.

**321 From natural organic fiber (e.g., wool, etc.):**  
This subclass is indented under subclass 320. Subject matter wherein the fibers include natural organic fibers such as wool, etc.

**322 Including particulate material other than fiber:**  
This subclass is indented under subclass 321. Subject matter wherein the fabric contains particulate material which is not fiber.

**323 At least three layers:**  
This subclass is indented under subclass 321. Subject matter wherein the fabric comprises at least two additional distinct layers

**324 From synthetic organic fiber:**  
This subclass is indented under subclass 320. Subject matter wherein the fibers include synthetic organic fibers.

**325 Including particulate material other than fiber:**  
This subclass is indented under subclass 320. Subject matter wherein the fabric contains particulate material which is not fiber.

**326 At least three layers:**  
This subclass is indented under subclass 320. Subject matter wherein the fabric comprises at least two additional distinct layers.

**327 NONWOVEN FABRIC (I.E., NONWOVEN STRAND OR FIBER MATERIAL):**  
This subclass is indented under the class definition. Subject matter wherein the fabric comprising a fabric assembly having structural integrity of continuous or discontinuous strands or fibers held together in random or ordered (e.g., parallel, etc.) array by (a) mechanical interlocking (e.g., as a consequence of needling or hydroentangling, etc.) in

the case of thermoplastic fibers, heat-induced bonding (i.e., fusing), or (b) an impregnation or coating of a bonding agent.

(1) Note. Paper or felt are not to be considered as nonwoven fabrics for classification here.

**SEE OR SEARCH CLASS:**

28, Textiles: Manufacturing, subclasses 103 through 115 for nonwoven fabrics made solely by a fiber entanglement or interlocking process without any other fabric processing prior to or following the entanglement or interlocking process.

156, Adhesive Bonding and Miscellaneous Chemical Manufacture, subclass 180 and 181 for processes used to form nonwoven fabrics comprising thermoplastic fibers (i.e., heat-induced bonding).

162, Paper Making and Fiber Liberation, subclasses 100 through 231 for paper products made by a papermaking process without the addition of an additional fabric layer (i.e., woven, knit, or nonwoven fabric layer).

428, Stock Material or Miscellaneous Articles, subclasses 341+ for hollow or container type articles (e.g., tube, vase, etc.) containing nonwoven fabric; subclasses 174+ for a nonwoven product of uniform thickness but of nonplanar characteristics; and subclasses 195+ for nonwoven fabrics with a discontinuous coating, impregnation, or bond.

**328 Nonwoven fabric has an elastic quality:**  
This subclass is indented under subclass 327. Subject matter wherein the fabric has an ability to recover substantially its original shape and size immediately after removal of deformation or elongation causing stress.

**329 Nonwoven fabric comprises an elastic strand or fiber material:**  
This subclass is indented under subclass 328. Subject matter wherein a strand or filamentary constituent thereof or fiber material of which the fabric is composed is characterized by elastic qualities (e.g., it is formed of or has a core of elastomeric polymeric material, etc.)

SEE OR SEARCH THIS CLASS, SUB-CLASS:

334, for fabrics composed of a non-elastomeric core-spun strand or fiber material.

SEE OR SEARCH CLASS:

57, Textiles: Spinning, Twisting, and Twining, subclass 225 and 226 for elastomeric core-spun yarns, per se.

**330 Including strand or fiber material precoated with other than free metal or alloy:**

This subclass is indented under subclass 327. Subject matter comprising a strand or fiber material which had been coated with a nonmetallic material prior to fabric assembly.

**331 Strand or fiber material is glass:**

This subclass is indented under subclass 330. Subject matter wherein the strand or fiber material is glass.

**332 Strand or fiber material is inorganic:**

This subclass is indented under subclass 330. Subject matter wherein the strand or fiber material is inorganic material.

**333 Strand or fiber material is synthetic polymer:**

This subclass is indented under subclass 330. Subject matter wherein the strand or fiber material is synthetic polymeric material.

**334 Including strand or fiber material which is of specific structural definition:**

This subclass is indented under subclass 327. Subject matter wherein the fabric comprises (a) strand or fiber material having a specific structural characteristic such as being composed of individual filaments having different chemical composition twisted together or being core-spun about a non-elastic core or (b) the strand or fiber material, per se, or individual filamentary material comprising the strand are characterized by a specific structural feature such as nonlinearity, a particular cross section, or a particular absolute size of any feature, component, or dimension (e.g., length, width, or thickness).

SEE OR SEARCH CLASS:

57, Textiles: Spinning, Twisting, and Twining, subclasses 224 through 230 for core-spun yarns, per se.

**335 Cross-sectional configuration of strand or fiber material is specified:**

This subclass is indented under subclass 334. Subject matter wherein the cross-sectional shape of the strand or a filamentary constituent thereof or the fiber material is specified or of continuously uniform diameter or of a particular nature or specified shape or dimension.

SEE OR SEARCH CLASS:

428, Stock Material or Miscellaneous Articles, subclasses 397 through 402 for strand materials having, per se, particular cross sections or physical dimensions.

**336 Cross-sectional configuration varies longitudinally along strand or fiber material:**

This subclass is indented under subclass 335. Subject matter wherein the cross section of the strand or a filamentary constituent thereof or the fiber material changes along the length thereof either in dimension or shape.

SEE OR SEARCH CLASS:

428, Stock Material or Miscellaneous Articles, subclass 399 for longitudinally varying strands, per se.

**337 Cross-sectional configuration of strand or fiber material is other than circular:**

This subclass is indented under subclass 335. Subject matter wherein the cross-sectional configuration of the strand or a filamentary constituent thereof or the fiber material is specified, not being circular.

**338 Hollow strand or fiber material:**

This subclass is indented under subclass 335. Subject matter wherein the strand or a filamentary constituent thereof or the fiber material is tubular or hollow or characterized by one or more voids either co-extensive or non-coextensive along the length thereof.

- SEE OR SEARCH CLASS:  
428, Stock Material or Miscellaneous Articles, subclass 398 for hollow strand material, per se.
- 339 Microcellular strand or fiber material:**  
This subclass is indented under subclass 335. Subject matter wherein the strand or a filamentary constituent thereof or the fiber material is microcellular in structure.
- 340 Strand or fiber material specified as having micro dimensions (i.e., microfiber):**  
This subclass is indented under subclass 334. Subject matter wherein the strand or a filamentary constituent thereof or the fiber material is specified as having a diameter of less than 100 microns or is specified as microfibers.
- 341 Strand or fiber material is blended with another chemically different microfiber in the same layer:**  
This subclass is indented under subclass 340. Subject matter wherein the strand or filamentary constituent thereof or the fiber material is blended with additional microfiber to form a single layer, the additional microfiber being chemically different.
- 342 Blend of synthetic polymeric and inorganic microfibers:**  
This subclass is indented under subclass 341. Subject matter wherein the single fabric layer comprises synthetic polymeric microfiber and inorganic microfiber.
- 343 Blend of chemically different inorganic microfibers:**  
This subclass is indented under subclass 341. Subject matter wherein the single fabric layer comprises at least two inorganic microfibers which are chemically different from one another.
- 344 Including other strand or fiber material in the same layer not specified as having micro dimensions:**  
This subclass is indented under subclass 340. Subject matter wherein a single layer contains a strand or a filamentary constituent thereof or a fiber material of micro dimensions blended with another strand or fiber material.
- 345 Including another chemically different microfiber in a separate layer:**  
This subclass is indented under subclass 340. Subject matter wherein the strand or a filamentary constituent thereof or the fiber material is combined with a separate layer which contains a chemically different microfiber.
- 346 Including other strand or fiber material in a different layer not specified as having micro dimensions:**  
This subclass is indented under subclass 340. Subject matter wherein the strand or a filamentary constituent thereof or the fiber material is combined with a separate layer which contains other strand or fiber material.
- 347 Microfiber is a composite fiber:**  
This subclass is indented under subclass 340. Subject matter wherein the strand or a filamentary constituent thereof or the fiber material specified as having micro dimensions is a composite microfiber.
- 348 Microfiber is glass:**  
This subclass is indented under subclass 340. Subject matter wherein the strand or a filamentary constituent thereof or the fiber material is glass.
- 349 Microfiber is carbon or carbonaceous:**  
This subclass is indented under subclass 340. Subject matter wherein the strand or a filamentary constituent thereof or the fiber material is a carbon (graphite) or carbonaceous microfiber.
- 350 Autogenously bonded:**  
This subclass is indented under subclass 340. Subject matter wherein the strand or a filamentary constituent thereof or the fiber material is autogenously bonded (i.e., having heat- and/or pressure-promoted thermoplastic welding or solvent bonding).
- 351 Microfiber is synthetic polymer:**  
This subclass is indented under subclass 340. Subject matter wherein the strand or a filamentary constituent thereof or the fiber material is a synthetic polymeric microfiber.

**352 Strand or fiber material is specified as nonlinear (e.g., crimped, coiled, etc.):**

This subclass is indented under subclass 334. Subject matter wherein the strand or a filamentary constituent thereof or the fiber material is specified as being crimped, coiled, etc.

**353 Composite strand or fiber material:**

This subclass is indented under subclass 352. Subject matter wherein the strand or a filamentary constituent thereof or the fiber material comprises two or more chemically distinct components.

**354 Carbon or carbonaceous strand or fiber material:**

This subclass is indented under subclass 352. Subject matter wherein the strand or a filamentary constituent thereof or the fiber material comprises carbon (graphite) or carbonaceous material.

**355 Glass strand or fiber material:**

This subclass is indented under subclass 352. Subject matter wherein the strand or a filamentary constituent thereof or the fiber material comprises glass material.

**356 A single nonwoven layer comprising nonlinear synthetic polymeric strand or fiber material and strand or fiber material not specified as nonlinear:**

This subclass is indented under subclass 352. Subject matter wherein the strand or a filamentary constituent thereof or fiber material which is specifically stated to be nonlinear comprises a synthetic polymeric material and is combined with an additional strand or fiber material which is not specified as nonlinear to form a single layer.

**357 Synthetic polymeric strand or fiber material is of staple length:**

This subclass is indented under subclass 356. Subject matter wherein the strand or a filamentary constituent thereof or fiber material which is specifically stated to be nonlinear comprises staple length material.

**358 A nonwoven fabric having a layer comprising nonlinear synthetic polymeric strand or fiber material and a separate and distinct**

**layer comprising strand or fiber material which is not specified as nonlinear:**

This subclass is indented under subclass 352. Subject matter wherein the strand or a filamentary constituent thereof or fiber material which is specifically stated to be nonlinear comprises a synthetic polymeric material and is combined with at least one additional separate and distinct layer of strand or fiber material which is not being specified as nonlinear.

**359 Synthetic polymeric strand or fiber material:**

This subclass is indented under subclass 352. Subject matter wherein the strand or a filamentary constituent thereof or fiber material which is specifically stated to be nonlinear comprises a synthetic polymeric material.

**360 Synthetic polymeric strand or fiber material is of staple length:**

This subclass is indented under subclass 359. Subject matter wherein the strand or a filamentary constituent thereof or fiber material which is specifically stated to be nonlinear comprises a staple length synthetic polymeric material.

**361 Including strand or fiber material which is a monofilament composed of two or more polymeric materials in physically distinct relationship (e.g., sheath-core, side-by-side, islands-in-sea, fibrils-in-matrix, etc.) or composed of physical blend of chemically different polymeric materials or a physical blend of a polymeric material and a filler material:**

This subclass is indented under subclass 327. Subject matter wherein the strand or fiber material, per se, is a monofilament composed of (a) two or more synthetic polymeric materials which are specified as being in sheath-core, side-by-side, islands-in-sea, fibrils-in-matrix, or any other physically distinct relationship across a cross section thereof, (b) a physical blend of two or more polymeric materials specifically disclosed and/or claimed as having distinctly different chemical or physical characteristics, or (c) a blend or an admixture of a polymeric material and a filler material.

**SEE OR SEARCH CLASS:**

428, Stock Material or Miscellaneous Articles, subclass 372 for strand or fiber material containing structurally



defined particulate material, per se;  
and subclasses 373 and 374 for multi-  
component strands and filaments, per  
se.

**362 Side-by-side multicomponent strand or fiber material:**

This subclass is indented under subclass 361. Subject matter wherein the strand or fiber material contains two or more synthetic polymeric materials, the polymeric materials being in a side-by-side relationship across a cross section thereof.

**SEE OR SEARCH CLASS:**

428, Stock Material or Miscellaneous Articles, subclass 374 for a side-by-side filament or strand, per se.

**363 Islands-in-sea multicomponent strand or fiber material:**

This subclass is indented under subclass 361. Subject matter wherein the strand or fiber material is characterized by two or more distinct polymeric materials in an islands-in-sea distinct physical relationship across a cross section thereof.

**SEE OR SEARCH CLASS:**

428, Stock Material or Miscellaneous Articles, subclass 374 for an island-in-sea filament or strand, per se.

**364 Sheath-core multicomponent strand or fiber material:**

This subclass is indented under subclass 361. Subject matter wherein the strand or fiber material contains two or more synthetic polymeric materials which are in a sheath-core relationship across a cross section thereof.

**SEE OR SEARCH CLASS:**

428, Stock Material or Miscellaneous Articles, subclass 373 for a sheath-core filament or strand, per se.

**365 Strand or fiber material is a blend of polymeric material and a filler material:**

This subclass is indented under subclass 361. Subject matter wherein the strand or fiber material comprises a blend or admixture of a synthetic polymeric material and one or more specified filler materials.

**SEE OR SEARCH CLASS:**

428, Stock Material or Miscellaneous Articles, subclass 372 for a strand or fiber material containing structurally defined particulate material, per se.

**366 Including parallel strand or fiber material within the nonwoven fabric:**

This subclass is indented under subclass 327. Subject matter wherein the nonwoven fabric comprises strand or fiber material which has been oriented in a particular direction, the strand or fiber material being parallel to one another.

**367 Parallel strand or fiber material is glass:**

This subclass is indented under subclass 366. Subject matter wherein the parallel strand or fiber material within the nonwoven fabric is glass material.

**368 Parallel strand or fiber material is inorganic (e.g., rock wool, mineral wool, etc.):**

This subclass is indented under subclass 366. Subject matter wherein the parallel strand or fiber material within the nonwoven fabric is inorganic material.

**369 Parallel strand or fiber material is naturally occurring (e.g., cotton, wool, etc.):**

This subclass is indented under subclass 366. Subject matter wherein the parallel strand or fiber material within the nonwoven fabric is naturally occurring material such as cotton, wool, etc.

**370 Including a foamed layer or component:**

This subclass is indented under subclass 327. Subject matter including a component or layer specified as being a foam (i.e., a material characterized by a multitude of open or closed cells).

**371 Including a free metal or alloy constituent:**

This subclass is indented under subclass 370. Subject matter having a constituent which is a metal in elemental or alloy form (i.e., other than in the form of a chelate, salt, or compound resulting from the chemical reaction of a metal).

(1) Note. Classified here is, for example a fabric-foam combination wherein (a) the

- fabric or the foam has been provided with a metal coating, (b) the fabric is composed of a strand comprising elemental metal, and (c) a metal layer having structural integrity has been adhesively associated with the foam and/or fabric layer.
- 372 Plural foamed layers:**  
This subclass is indented under subclass 370. Subject matter characterized by having two or more distinct foam layers.
- 373 Plural fabric layers:**  
This subclass is indented under subclass 370. Subject matter characterized by having two or more distinct fabric layers.
- 374 Nonwoven fabric is coated, impregnated, or autogenously bonded:**  
This subclass is indented under subclass 370. Subject matter wherein the nonwoven fabric has been coated or impregnated or autogenously bonded (i.e., wherein the strands or filamentary components thereof or fiber material have been caused to adhere to one another through activation of an inherent cohesive or adhesive property by heat and/or pressure or application of solvent).
- 375 Including particulate material other than fiber:**  
This subclass is indented under subclass 374. Subject matter wherein the coated, impregnated, or autogenously bonded nonwoven fabric contains particulate material which is not in fiber form.
- 376 Including a free metal or alloy constituent:**  
This subclass is indented under subclass 327. Subject matter having a constituent which is a metal in elemental or alloy form (i.e., in other than the form of a chelate, salt, or compound resulting from the chemical reaction of a metal).
- 377 Metal or metal-coated strand or fiber material:**  
This subclass is indented under subclass 376. Subject matter wherein the metal constituent is in the form of a strand or fiber material or a coating applied to a strand or fiber material prior to forming the strand or fiber material into a fabric.
- 378 Preformed metallic film or foil or sheet (film or foil or sheet had structural integrity prior to association with the nonwoven fabric):**  
This subclass is indented under subclass 376. Subject matter wherein the metal constituent was provided by at least one preformed layer having had structural integrity prior to its association with the fabric.
- 379 Vapor, chemical, or spray deposited metal layer:**  
This subclass is indented under subclass 376. Subject matter wherein the metal constituent is in the form of a distinct layer provided by a vapor, chemical, spray, or electrochemical process (e.g., chemical precipitation or electrochemical deposition or plating).
- 380 Particulate free metal or alloy constituent:**  
This subclass is indented under subclass 376. Subject matter wherein the metal in elemental or alloy form is particulate material.
- 381 Including an additional nonwoven fabric:**  
This subclass is indented under subclass 327. Subject matter wherein the nonwoven fabric is in association with an additional nonwoven fabric.
- 382 Additional nonwoven fabric is a spun-bonded fabric:**  
This subclass is indented under subclass 381. Subject matter wherein the additional nonwoven fabric is a spun-bonded fabric.
- 383 Needled:**  
This subclass is indented under subclass 382. Subject matter wherein the first nonwoven fabric is needled prior to association with the spun-bonded fabric or the association therewith is by a needling process.
- 384 Hydroentangled:**  
This subclass is indented under subclass 382. Subject matter wherein the first nonwoven fabric is hydroentangled prior to association with the spun-bonded fabric or the association therewith is by a hydroentanglement process.

- 385 Including a wood fiber containing layer:**  
This subclass is indented under subclass 381. Subject matter wherein the nonwoven fabric has associated therewith an additional wood fiber layer.
- 386 Including a layer derived from a water-settable material (e.g., cement, gypsum, etc.):**  
This subclass is indented under subclass 381. Subject matter wherein the nonwoven fabric has associated therewith a water-settable material (e.g., cement, gypsum, plaster, etc.) which forms a distinct layer.
- 387 Mechanically interengaged by needling or impingement of fluid (e.g., gas or liquid stream, etc.):**  
This subclass is indented under subclass 381. Subject matter wherein the first nonwoven fabric is needled or impinged by fluid such as a gas or liquid stream prior to association with the additional nonwoven fabric or the association therewith is by a needling or fluid impingement process.
- 388 Needed:**  
This subclass is indented under subclass 387. Subject matter wherein the nonwoven fabrics are mechanically interengaged by needling.
- 389 Separate nonwoven fabric layers comprise chemically different strand or fiber material:**  
This subclass is indented under subclass 381. Subject matter wherein the nonwoven fabric layers comprise chemically different strand or fiber material.
- 390 At least one layer of inorganic strand or fiber material and at least one layer of synthetic polymeric strand or fiber material:**  
This subclass is indented under subclass 389. Subject matter wherein the nonwoven layer comprises inorganic strands or fiber materials and the additional nonwoven layer comprises synthetic polymeric strand or fiber material.
- 391 Multiple nonwoven fabric layers composed of the same inorganic strand or fiber material:**  
This subclass is indented under subclass 381. Subject matter wherein the nonwoven fabric layer and the additional nonwoven fabric layer comprise the same inorganic strand or fiber material.
- 392 Multiple nonwoven fabric layers composed of the same polymeric strand or fiber material:**  
This subclass is indented under subclass 381. Subject matter wherein the nonwoven fabric layer and the additional nonwoven fabric layer comprise the same polymeric strand or fiber material.
- 393 Including particulate material other than fiber:**  
This subclass is indented under subclass 381. Subject matter wherein the nonwoven fabric layer includes particulate material which is not fiber.
- 394 Nonwoven fabric with a preformed polymeric film or sheet:**  
This subclass is indented under subclass 327. Subject matter wherein the nonwoven fabric is associated with a preformed polymeric film or sheet layer having structural integrity prior to association with the nonwoven fabric.
- 395 Ester condensation polymer sheet or film (e.g., polyethylene terephthalate, etc.):**  
This subclass is indented under subclass 394. Subject matter wherein the preformed polymeric film or sheet is an ester condensation polymer such as polyethylene terephthalate, etc.
- 396 Vinyl polymer or copolymer sheet or film (e.g., polyvinyl chloride, polyvinylidene chloride, polyvinyl acetate, etc.):**  
This subclass is indented under subclass 394. Subject matter wherein the preformed polymeric film or sheet is a vinyl polymer or copolymer such as polyvinyl chloride, polyvinylidene chloride, polyvinyl acetate, etc.
- 397 Fluorinated olefin polymer or copolymer sheet or film (e.g., Teflon®4121):**  
This subclass is indented under subclass 394. Subject matter wherein the preformed polymeric film or sheet is a fluorinated olefin polymer or copolymer such as Teflon®4121, etc.

- 398 Olefin polymer or copolymer sheet or film (e.g., polypropylene, polyethylene, ethylene-butylene copolymer, etc.):**  
This subclass is indented under subclass 394. Subject matter wherein the preformed polymeric film or sheet is an olefin polymer or copolymer such as polypropylene, polyethylene, ethylene-butylene copolymer, etc.
- 399 Natural or synthetic rubber sheet or film:**  
This subclass is indented under subclass 394. Subject matter wherein the preformed polymeric film or sheet is a rubber, the rubber being natural or synthetic rubber.
- 400 Melt-blown nonwoven fabric:**  
This subclass is indented under subclass 327. Subject matter wherein the nonwoven fabric is melt blown.
- 401 Spun-bonded nonwoven fabric:**  
This subclass is indented under subclass 327. Subject matter wherein the nonwoven fabric is spun bonded.
- 402 Needled nonwoven fabric:**  
This subclass is indented under subclass 327. Subject matter wherein the nonwoven fabric is needled.
- 403 Containing at least two chemically different strand or fiber materials:**  
This subclass is indented under subclass 402. Subject matter wherein the nonwoven fabric comprises two or more chemically different strands or fiber materials mechanically interengaged by needling.
- 404 Containing inorganic and polymeric strand or fiber materials:**  
This subclass is indented under subclass 403. Subject matter wherein the nonwoven fabric comprises at least one inorganic and at least one polymeric strand or fiber material mechanically interengaged by needling.
- 405 Containing polymeric and natural strand or fiber materials:**  
This subclass is indented under subclass 403. Subject matter wherein the nonwoven fabric comprises at least one polymeric and at least one natural strand or fiber material mechanically interengaged by needling.
- 406 Containing inorganic strand or fiber material:**  
This subclass is indented under subclass 403. Subject matter wherein the nonwoven fabric comprises two or more inorganic strand or fiber materials mechanically interengaged by needling.
- 407 Containing polymeric strand or fiber material:**  
This subclass is indented under subclass 403. Subject matter wherein the nonwoven fabric comprises two or more polymeric strand or fiber materials mechanically interengaged by needling.
- 408 Hydroentangled nonwoven fabric:**  
This subclass is indented under subclass 327. Subject matter wherein the nonwoven fabric is hydroentangled.
- 409 Autogenously bonded nonwoven fabric:**  
This subclass is indented under subclass 327. Subject matter wherein the nonwoven fabric is autogenously bonded (i.e., having heat- and/or pressure-promoted thermoplastic welding or solvent bonding).
- 410 Inorganic strand or fiber material only:**  
This subclass is indented under subclass 409. Subject matter wherein the nonwoven fabric contains only inorganic strand or fiber material.
- 411 Containing at least two chemically different strand or fiber materials:**  
This subclass is indented under subclass 409. Subject matter wherein the nonwoven fabric comprises two or more chemically different strands or fiber materials.
- 412 Including a paper layer:**  
This subclass is indented under subclass 327. Subject matter wherein the nonwoven fabric is in association with a paper layer.
- 413 Including a wood containing layer:**  
This subclass is indented under subclass 327. Subject matter wherein the nonwoven fabric is in association with an additional layer containing wood.

- 414 Including strand or fiber material which is stated to have specific attributes (e.g., heat or fire resistance, chemical or solvent resistance, high absorption for aqueous compositions, water solubility, heat shrinkability, etc.):**

This subclass is indented under subclass 327. Subject matter wherein the nonwoven fabric includes strand or fiber material which has attributes such as heat or fire resistance, chemical or solvent resistance, high absorption for aqueous compositions, water solubility, heat shrinkability, etc., the strand or fiber material attributes being specifically stated.

- (1) Note. Inherent properties of a given strand or fiber material should not be considered for classification purposes in this subclass, only specifically stated properties of the strand or fiber material.

- 415 Containing at least two chemically different strand or fiber materials:**

This subclass is indented under subclass 327. Subject matter wherein the nonwoven fabric comprises two or more chemically different strand or fiber materials.

- 416 Containing polymeric and natural strand or fiber materials:**

This subclass is indented under subclass 415. Subject matter wherein the nonwoven fabric comprises at least one polymeric and at least one natural strand or fiber material.

- 417 Including particulate material other than strand or fiber material:**

This subclass is indented under subclass 327. Subject matter wherein the nonwoven fabric contains particulate material, the particulate material not being strand or fiber material.

#### FOREIGN ART COLLECTIONS

The definitions for FOR 100-FOR 167 below correspond to the definitions of the abolished subclasses (224-291) under Class 442 from which these collections were formed. See the Foreign Art Collection schedule for specific correspondences. [Note: The titles and definitions for *indented* art collections include all the details of the one(s) that are hierarchically superior.]

#### FOR 100

Foreign art collection for a product in which the web or sheet is disclosed as useful in the manufacture of clothing, draperies, upholstery, shoes or their reinforcements, or tire fabric reinforcements or other such wearing or household uses such as roofing felt and is claimed as a textile, cloth or fabric or the equivalent thereof.

#### FOR 101

Foreign art collection for a product not elsewhere provided for in which the structurally defined element or component comprises strands, strand-portions\* or relatively narrow ribbon elements mechanically intertangled, interlooped, interwoven or intertwined.

#### FOR 102

Foreign art collection for a product wherein at least some of the cross-joined constituents are relatively narrow ribbon-like elements mechanically interengaged with similar elements or with strands or strand-portions.

#### FOR 103

Foreign art collection for a product which consists of or includes a layer of strand material in a nonparallel arrangement with portions of the strand material interlocked with one another.

#### FOR 104

Foreign art collection for a product in which the material comprises strands of glass.

#### FOR 105

Foreign art collection for a product in which constituent strands of the fabric are permanently either (a) deformed, (b) elongated, (c) enlarged in diameter, or (d) reduced in length following assembly of said strands to form the product or some physical or chemical characteristic of the strand is recited.

#### FOR 106

Foreign art collection for a product in which the layer or component, or a portion or strand thereof possesses a relatively high degree of extensibility longitudinally and/or laterally of the web and the ability to resile from the extension with substantially no permanent deformation.

#### FOR 107

Foreign art collection for a product comprising individually resilient strands or strand-  
portions.

**FOR 108**

Foreign art collection for a product which also includes a plurality of individual strands or strand-like strips lying side-by-side in a layer, whether touching or not and extending generally in the same direction without interengagement with any other strand or strip.

**FOR 109**

Foreign art collection for a product wherein the strand layer or component is part of a composite web which also includes a layer or component which consists of or includes fibers\*.

**FOR 110**

Foreign art collection for a product in which adjacent layers of the composite web are secured to each other by intertangement of the fibers of one layer with an adjacent layer, the intertangement being disclosed as accomplished by the use of barbed needles passing through the layers.

**FOR 111**

Foreign art collection for a product in which the fibers or any of the layers or components are covered or saturated, at least in part, with extraneous material or in which layers or components or constituents thereof, are joined to each other by an adhesive substance.

**FOR 112**

Foreign art collection for a product in which the fibers or any of the layers or components are covered or saturated, at least in part, with extraneous material or in which at least some of the layers or components or constituents thereof are joined together by an adhesive substance.

**FOR 113**

Foreign art collection for a product which includes material in the form of small particles embedded in or adhered to the surface of the web.

**FOR 114**

Foreign art collection for a product wherein the layer or component of interengaged strands is enclosed within a layer or between layers of nonstrand material.

**FOR 115**

Foreign art collection for a product wherein the enclosing layer(s) consists of or includes fibers.

**FOR 116**

Foreign art collection for a product which includes material in the form of small or minute particles incorporated as a distinct layer of the product, embedded therein or adhered to a surface matter.

**FOR 117**

Foreign art collection for a product in which the particles contain silicon in either the elemental or compound form.

**FOR 118**

Foreign art collection for a product in which the particles contain a metal\* in either its element or combined state.

**FOR 119**

Foreign art collection for a product in which the particles contain the carbohydrate known as cellulose in either its natural or modified form.

**FOR 120**

Foreign art collection for a product in which the particles consist of carbon in its element state or in any of its allotropic forms.

**FOR 121**

Foreign art collection for a product in which the web or sheet or constituent\* thereof is fully covered or saturated with extraneous material or in which elements or components are adhesively or cohesively joined to one another.

**FOR 122**

Foreign art collection for a product in which the sheet\* or web\* comprises at least three layers\*.

**FOR 123**

Foreign art collection for a product in which at least one layer comprises strands or fila-

ments or fibers or strand-portions or strips which are tied at their intersections or are loosely interwoven to provide interstices of substantial size.

**FOR 124**

Foreign art collection for a product in which one of the layers comprises cellulose in either its natural or modified state.

**FOR 125**

Foreign art collection for a product comprising at least two layers of cellulosic material in either the natural or modified state.

**FOR 126**

Foreign art collection for a product in which one of the layers comprises the natural gum known as caoutchouc\*, gutta percha\* or balata\* from the latex or sap of the "rubber" tree.

**FOR 127**

Foreign art collection for a product in which the component which incorporates the interengaged strands comprises a material containing silicon or a free metal\*.

**FOR 128**

Foreign art collection for a product in which the component which incorporates the interengaged strands comprises a synthetic resin or polymer.

**FOR 129**

Foreign art collection for a product wherein the strand-type component comprises interlocked loops of strand\* material.

**FOR 130**

Foreign art collection for a product comprising a single layer of interlocked loops of strand-like material which is saturated or permeated with a fluid.

**FOR 131**

Foreign art collection for a product which comprises strand-type component having crossed strands which are tied at their junctures, or loosely interwoven strands which are arranged to provide interstitial spaces of substantial size.

**FOR 132**

Foreign art collection for a product in which the strands are metal\*.

**FOR 133**

Foreign art collection for a product wherein the strand-type layer or component has a specifically claimed woven texture or wherein the woven texture of one component differs substantially from that of another component of the web.

**FOR 134**

Foreign art collection for a product in which all of the basic warp strands in a component differ from all of the basic weft strands, either physically, as in size or hardness, or with regard to the material from which they are made.

**FOR 135**

Foreign art collection for a product in which the weft strands differ from the warp strands with regard to the material from which each is made.

**FOR 136**

Foreign art collection for a product in which the web or sheet is fully covered or saturated with extraneous material.

**FOR 137**

Foreign art collection for a product wherein the extraneous material is capable of sticking to a surface to which it may be applied or of being activated so as to have such capability.

**FOR 138**

Foreign art collection for a product wherein the extraneous material covers the sheet or web, forming a layer on the surface thereof.

**FOR 139**

Foreign art collection for a product in which the layer contains either (1) a free or combined metal or (2) natural rubber.

**FOR 140**

Foreign art collection for a product in which the web or sheet material is cellulosic\* or is derived therefrom.

**FOR 141**

Foreign art collection for a product wherein the constituent strands comprise artificially produced fibers\* or filaments\*.

**FOR 142**

Foreign art collection for a product in which the coating comprises (1) a compound similar to hydrocarbons in which the tetravalent silicon replaces the carbon atom, as  $\text{SiH}_4$ --monosilane or silicomethane, (2) an elastomeric in which the carbon linkages of a polymerized hydrocarbon are replaced by Si-O linkages or (3) any of a class of compounds that contain alternate silicon and oxygen atoms in either a linear structure (such as  $\text{H}_3\text{Si}(\text{OSiH}_2)_n\text{OSiH}_3$  or a cyclic structure as  $\text{H}_2(\text{SiO})_n$  and that may also contain methyl, phenyl or other organic radicals in place of some or all of the hydrogen atoms and are made by hydrolysis of chlorosilanes or alkoxy-silanes.

**FOR 143**

Foreign art collection for a product in which the synthetic strand comprises polyamide\* or polyimide\*.

**FOR 144**

Foreign art collection for a product wherein the fibers or filaments are finely attenuated glass.

**FOR 145**

Foreign art collection for a product in which a nonstrand layer or component has portions which enter the reticular spaces of a woven or braided layer or component.

**FOR 146**

Foreign art collection for a product in which the component comprises the hair from a sheep, or from some other animal whose hair is similar in texture to that of sheep and is permeated or saturated at least in part with an extraneous material

**FOR 147**

Foreign art collection for a product in which the component comprises fibers from the mineral asbestos and is permeated or saturated at least in part with an extraneous material.

**FOR 148**

Foreign art collection for a product in which the component comprises artificially or man-made fibers or filaments and is saturated or permeated with extraneous material.

**FOR 149**

Foreign art collection for a product in which the synthetic fiber or filament is glass\*.

**FOR 150**

Foreign art collection for a product wherein the web or sheet material is a single layer of cellulose or is derived from cellulose and is saturated or permeated.

**FOR 151**

Foreign art collection for a product in which the extraneous material contains a metal\* in either its free or combined form.

**FOR 152**

Foreign art collection for a product in which the extraneous material contains a compound of phosphorus.

**FOR 153**

Foreign art collection for a product in which the extraneous material also contains a halogen, which may be part of the phosphorous compound.

**FOR 154**

Foreign art collection for a product in which the component is saturated or permeated at least in part with an extraneous material which contains an aldehyde or ketone condensation\* product.

**FOR 155**

Foreign art collection for a product in which the component is saturated or permeated with an extraneous material which contains an organic nitrogen compound in which the molecular structure includes a central nitrogen atom joined to four organic groups.

**FOR 156**

Foreign art collection for a product comprising a fabric made of fibers which have been worked together by pressure, heat or other means without weaving or knitting.



**FOR 157**

Foreign art collection for a product in which the fabric also contains small pieces or fragments of solid matter.

**FOR 158**

Foreign art collection for a product which consists of at least three layers of material, at least one such layer comprising felt.

**FOR 159**

Foreign art collection for a product which comprises small bits or fragments of solid matter.

**FOR 160**

Foreign art collection for a product which comprises a fabric with at least two additional layers thereon.

**FOR 161**

Foreign art collection for a product wherein at least one of the layers consists of or includes a metal\* or a mixture of (1) fused silica, and (2) alkali and alkaline silicates, commonly known as glass\*.

**FOR 162**

Foreign art collection for a product wherein at least one of the layers consist of or includes a synthetic resin, that is, a complex organic compound produced from ingredients which are nonresinous in themselves and which simulates a natural resin in that it is usually adapted for forming films or for use as binders in plastic compositions or a polymer, that is, a substance, often synthetic, composed of giant molecules that have been formed by the union of a considerable number of simple molecules with one another.

**FOR 163**

Foreign art collection for a product wherein the polymeric compound is one (1) containing ester groups through which the monomers are linearly linked to each other or (2) amide or imide groups through which the monomers are linearly linked.

**FOR 164**

Foreign art collection for a product wherein the fibers of the textile, cloth or fabric are covered at least in part with extraneous

material or are adhesively or cohesively joined to each other.

**FOR 165**

Foreign art collection for a product comprising a nonwoven fabric which has (1) an impregnation, (2) a single coating thereon, or (3) combination of (1) and (2) above.

**FOR 166**

Foreign art collection for a product wherein the impregnant or coating consists of or includes nonnatural resin, i.e., a complex organic compound produced from ingredients which are nonresinous in themselves and which simulates a natural resin in that it is usually adapted for forming films or for use as binders in plastic compositions, or a polymer, that is, a substance, often synthetic, composed of giant molecules that have been formed by the union of a considerable number of simple molecules with one another.

**FOR 167**

Foreign art collection for a product wherein the impregnant or coating consists of or includes a (bituminous or tarry residue\*), natural gum\*, natural oil\*, resin\* or wax\*.

END

## PCT INTERNATIONAL COOPERATION TREATY

PCT

NOTIFICATION OF THE RECORDING  
OF A CHANGE(PCT Rule 92bis.1 and  
Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

BAYER AKTIENGESELLSCHAFT  
D-51368 Leverkusen  
ALLEMAGNE

<b>Date of mailing</b> (day/month/year) 28 September 1999 (28.09.99)	<b>IMPORTANT NOTIFICATION</b>
<b>Applicant's or agent's file reference</b> Le A 32 344-PC KM	
<b>International application No.</b> PCT/EP98/02553	
	<b>International filing date</b> (day/month/year) 30 April 1998 (30.04.98)

## 1. The following indications appeared on record concerning:

☒ the applicant    ☐ the inventor    ☐ the agent    ☐ the common representative

## Name and Address

PAPIERFABRIK SCHOELLER & HOESCH  
GMBH  
Hördener Strasse 3-7  
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Germany

State of Nationality

DE

State of Residence

DE

Telephone No.

Facsimile No.

Teleprinter No.

## 2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:

☐ the person    ☒ the name    ☐ the address    ☐ the nationality    ☐ the residence

## Name and Address

PAPIERFABRIK SCHOELLER & HOESCH  
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State of Nationality

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State of Residence

DE

Telephone No.

Facsimile No.

Teleprinter No.

## 3. Further observations, if necessary:

## 4. A copy of this notification has been sent to:

<input checked="" type="checkbox"/> the receiving Office	<input type="checkbox"/> the designated Offices concerned
<input type="checkbox"/> the International Searching Authority	<input checked="" type="checkbox"/> the elected Offices concerned
<input type="checkbox"/> the International Preliminary Examining Authority	<input type="checkbox"/> other:

The International Bureau of WIPO  
34, chemin des Colombettes  
1211 Geneva 20, Switzerland

Facsimile No.: (41-22) 740.14.35

Authorized officer

Céline Faust

Telephone No.: (41-22) 338.83.38

# PATENT COOPERATION TREATY

**PCT**

## NOTIFICATION OF ELECTION

(PCT Rule 61.2)

From the INTERNATIONAL BUREAU

To:

United States Patent and Trademark  
Office  
(Box PCT)  
Crystal Plaza 2  
Washington, DC 20231  
ÉTATS-UNIS D'AMÉRIQUE

in its capacity as elected Office

Date of mailing: 19 November 1998 (19.11.98)	
International application No.: PCT/EP98/02553	Applicant's or agent's file reference: Le A 32 344-PC KM
International filing date: 30 April 1998 (30.04.98)	Priority date: 13 May 1997 (13.05.97)
Applicant: TIMMERMANN, Ralf et al	

1. The designated Office is hereby notified of its election made:

☒ in the demand filed with the International preliminary Examining Authority on:  
31 October 1998 (31.10.98)

☐ in a notice effecting later election filed with the International Bureau on:

2. The election ☒ was  
☐ was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No.: (41-22) 740.14.35	Authorized officer:  J. Zahra Telephone No.: (41-22) 338.83.38
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